

New York State Journal of Medicine

Published by the
MEDICAL SOCIETY
of the STATE of NEW YORK



Volume 43

Part 1

JANUARY 1—JUNE 15, 1943

(Pages 1—1182)

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and subjects see pages 1171-1174*

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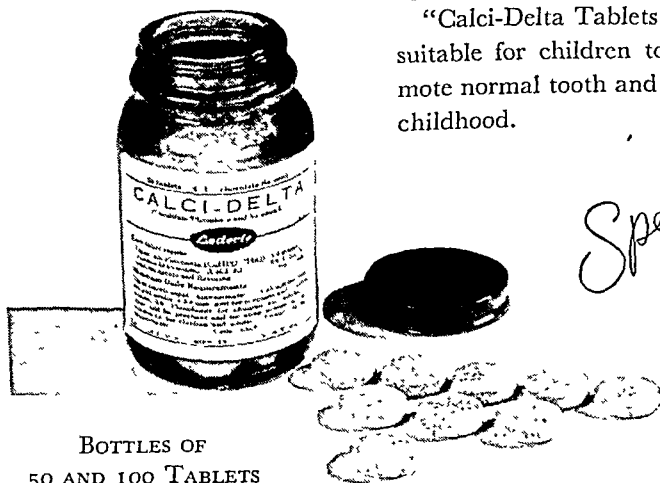
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**J.A.M.A., 93:1110—October 12, 1929*

Brückner, H. — Die Biochemie des Tabaks, 1936

The Military Surgeon, Vol. 29, No. 1, p. 5, July, 1941

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VOLUME 43

JANUARY 1, 1943

NUMBER 1

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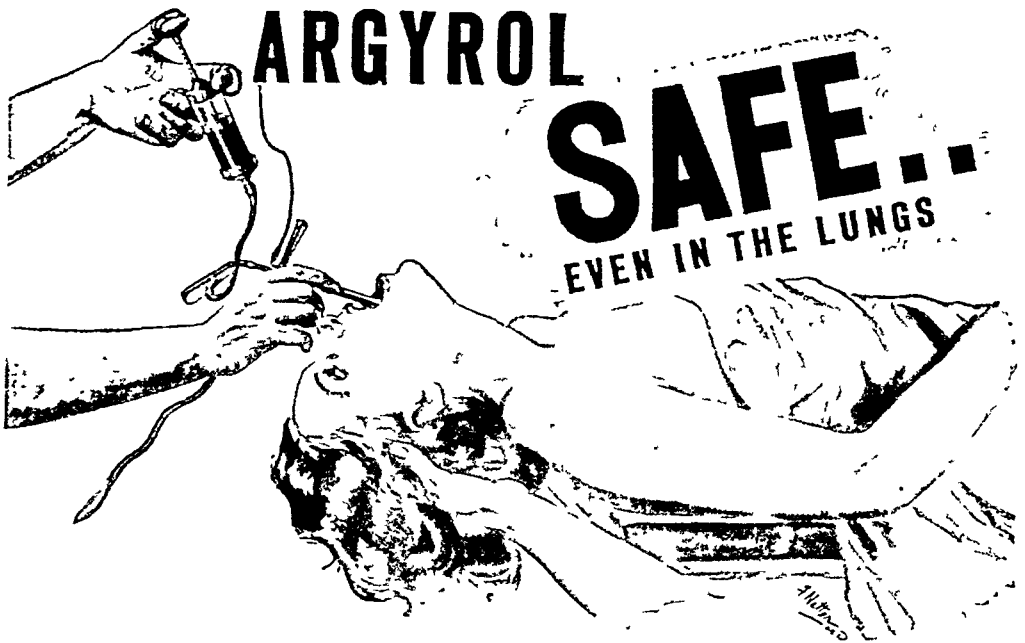
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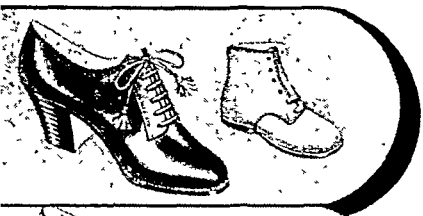
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May-June, 1942, p. 174

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Emery, E. S. Jr., and Rutherford,

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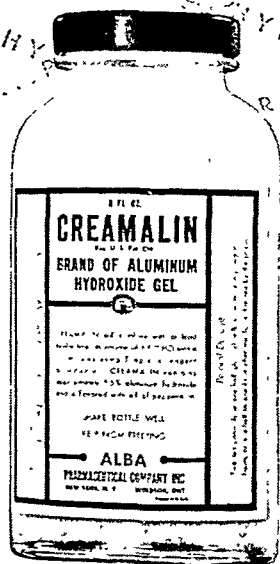
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STECK, I. E.: *"Further Clinical Experience in the Treatment of Arthritis with Vitamin D,"* *Ohio St. Med. J.*, 38:440-443, May, 1942.

Steck reported on his clinical experience in 98 cases of arthritis treated with ERTON and no concurrent medication.

These patients were observed over a period of years at the Arthritis Clinic, Research and Educational Hospitals, University of Illinois.

The therapeutic results were closely comparable with those previously reported from the same clinic. (Dreyer, I., and Reed, C. I.: "Treatment of arthritis with massive doses of Vitamin D," *Arch. Phys. Ther.*, 16:537, 1935; Reed C. I., Struck, H. C. and

Steck, I. E.: "Vitamin D: Chemistry, Physiology, Pharmacology, Pathology, Experimental and Clinical Investigations," University of Chicago Press, p. 389, 1939.)

In addition to the beneficial therapeutic effect of ERTON, it is important to note that "there was no toxicity at any time among the 98 patients included in this report."

INYDER, R. G., SQUIRES, W. H., FORSTER, J. W., TRAEGER, C. H. and WAGNER, L. C.: *"Treatment of 200 Cases of Chronic Arthritis with Electrically Activated Vaporized Sterol (Ertron),"* *Indus. Med.*: 11:295-316, July, 1942.

The authors made a comprehensive study of 200 cases of chronic arthritis treated with ERTON. Most of these patients had been treated previously by other methods at the same clinic (Arthritis Clinic, Hospital for Ruptured and Crippled, New York City) without success.

After extensive laboratory and clinical observations, the authors reported that "the medication used is a relatively non-toxic therapeutic agent. In our experience it has definite value as a method of treating chronic arthritis, especially of the rheumatoid type."

REYNOLDS, C.: *"Comparative Therapeutic Value and Toxicity of Various Types of Vitamin D,"* *Journal-Lancet*, 62:372-375, Oct., 1942.

Reynolds compared the therapeutic value and toxicity of various forms of Vitamin D, and concluded that massive doses of irradiated ergosterol bring about the development of toxic effects without clinical improvement of arthritic patients, while use of the electric-discharge activated heat-vaporized ergosterol (Whittier Process) has consistently been followed by clinical improvement with frequent rehabilitation, and with negligible or no toxic manifestations even over prolonged periods of intensive treatment."

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LIVINGSTON, S. K.: Vitamin D and Fever Therapy in Chronic Arthritis, Arch. Physical Therapy, X-Ray, Radium, Vol. XVII, pp. 704-706, November (1936).

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LEVINTHAL, DANIEL H. and LOGAN, C. E.: The Orthopedic and Medical Management of Arthritis, (In Press).

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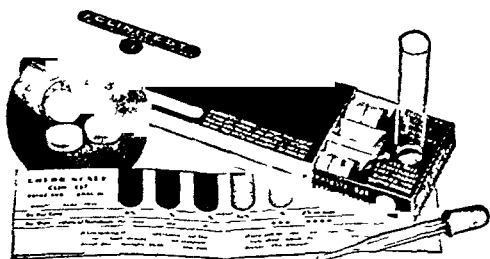
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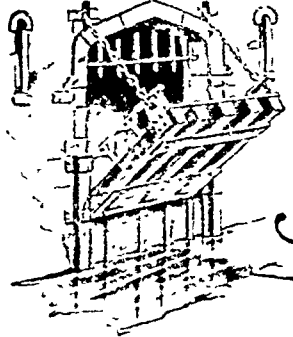
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** The Feeding of Healthy Infants and Children, Jeans, P.H.: J.A.M.A., 120: 913-921, Nov. 21, 1942.

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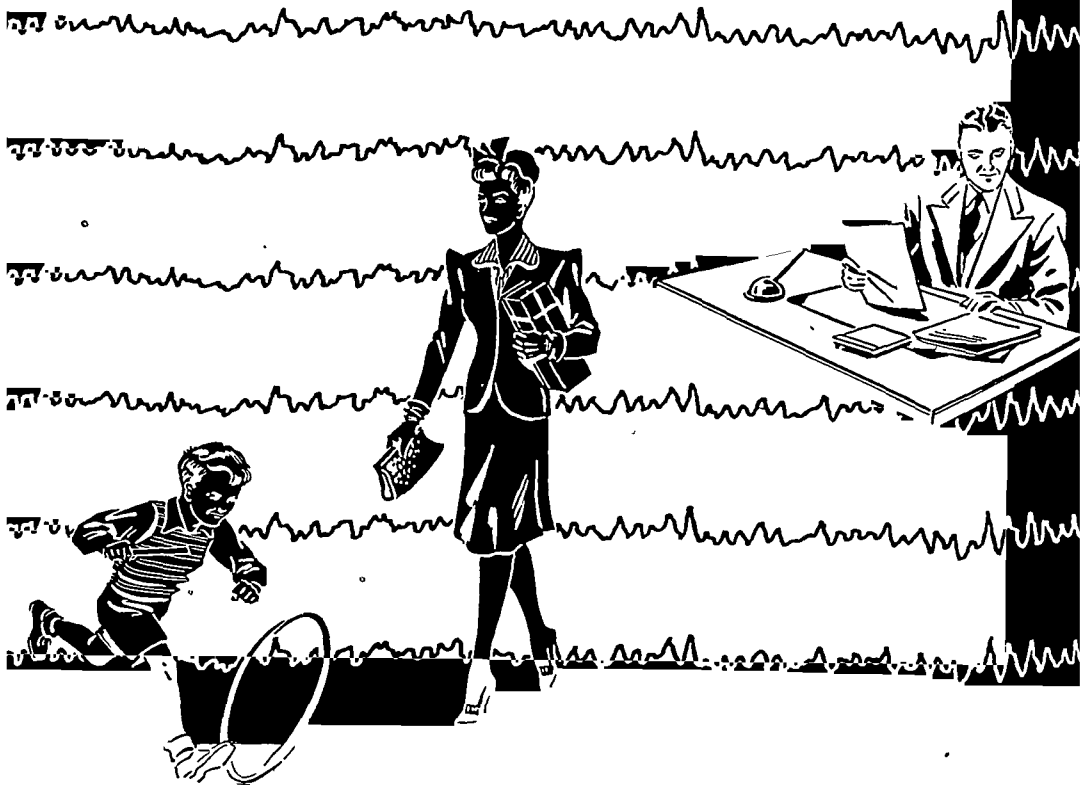
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1. Palmer, H. D. & Hughes, J.: *The Penn. Med. J.*, Aug. 1942

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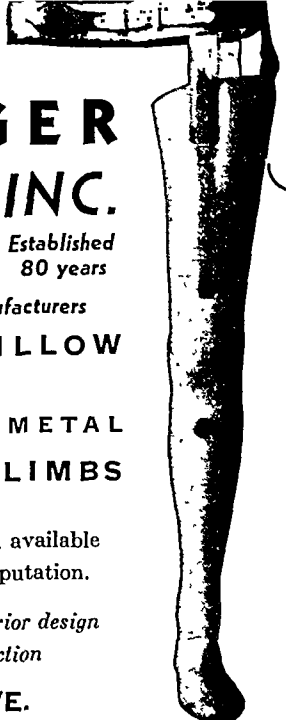
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*Clinical Application and Results of Pyridium Therapy, Illinois M. J. 78: 544-547, Dec., 1940.

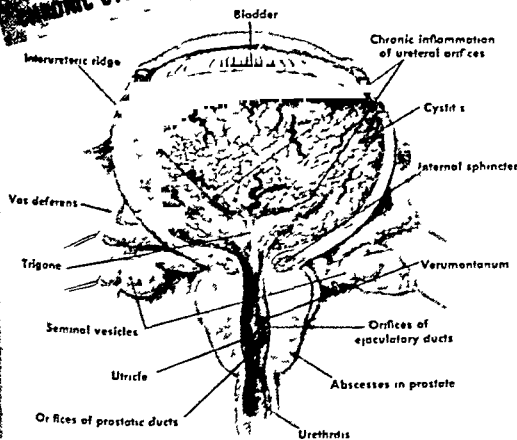
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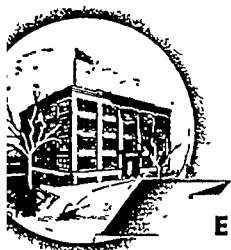
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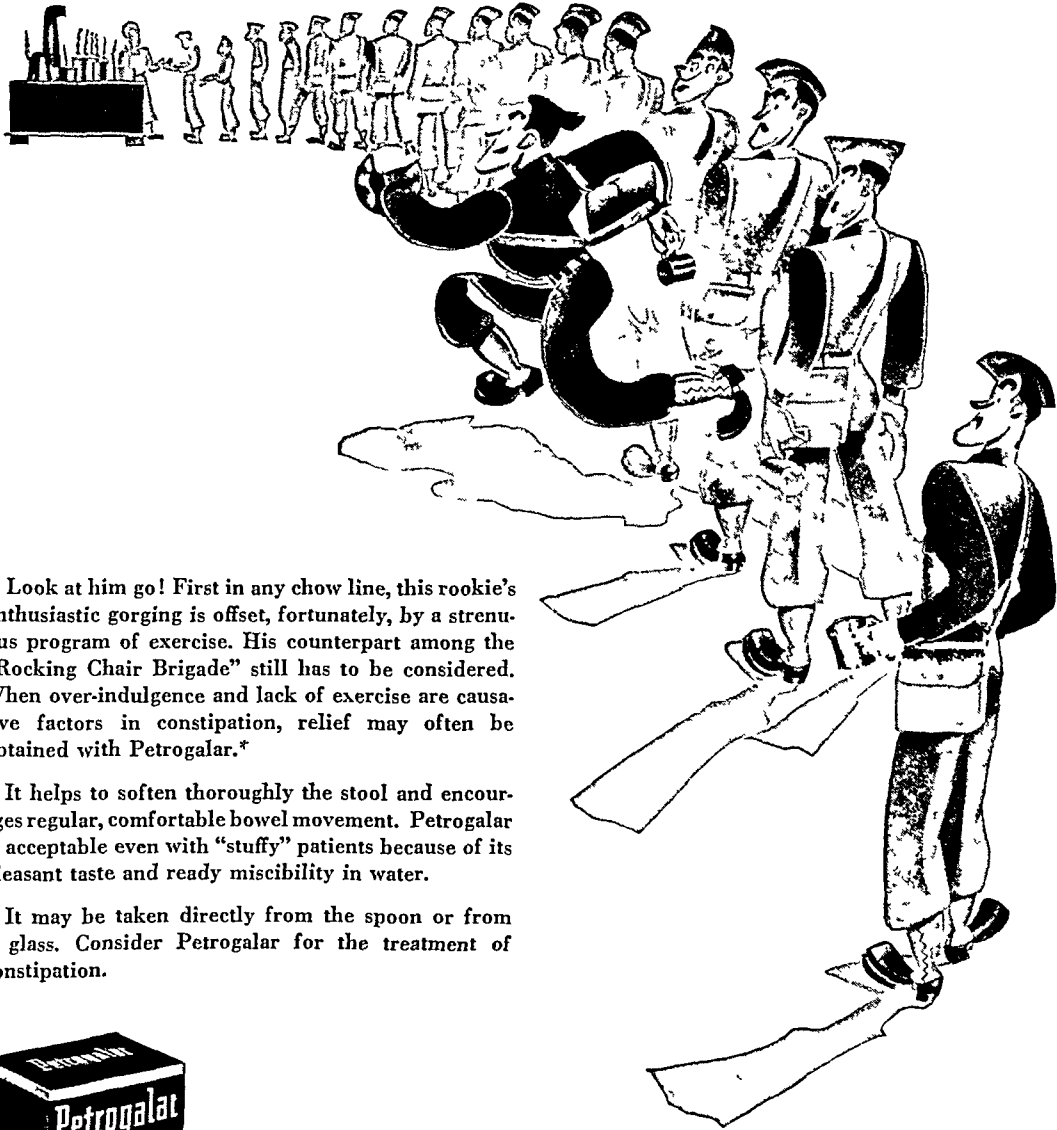
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* Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154;
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

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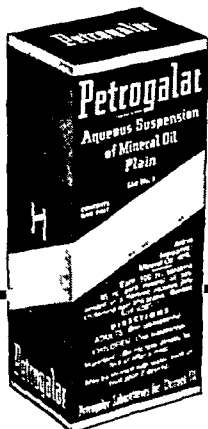
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VOLUME 43

JANUARY 1, 1943

NUMBER 1

Editorial

War and Social Reform

For those who still question the profound nature of the social and economic upheaval which is at the root of the present global war, the "Beveridge Report," a 100,000-word document compiled by Sir William Beveridge, noted English economist, will be an eye-opener. It would seem to be an important social document proposing, according to the *New York Times*,¹

"... complete and compulsory state insurance against every form of personal want and insecurity, to be administered by a Minister of Social Security and applied without regard for sex, age, income, or job. . . .

"An automatic product of Sir William's sickness plan will be the creation of a nationalized and completely comprehensive medical service for all citizens. This would broaden the present State panel of doctors into a revolutionary unified machine covering hospital, specialist, and surgical treatment and prenatal and postnatal treatment and convalescence."

Incidentally, the total cost is estimated at about \$4,000,000,000 yearly, or \$89 per capita. If adopted, it would affect the lives of 45,000,000 British people profoundly. It would naturally and automatically create a completely nationalized system of medical service.

Basically, it proposes to extend the social security program that has been operative in Great Britain for more than twenty-five years.

"Each type of social security presents its own special problems and pitfalls. People may easily become indifferent about a job if the con-

ditions and benefits of unemployment insurance are made more attractive than the job itself. Insurance against certain hazards, in short, sometimes increases the hazards themselves. This is the sort of question that must be raised regarding Sir William's proposals on unemployment benefits. If our future social programs are to be large-hearted, they must also be hard-headed, and they must undergo realistic analysis before they are accepted."¹

The report, though startling in the magnitude of its proposed cost and somewhat Utopian in its general concept and coverage, is indicative of a trend which cannot be ignored, and should not be minimized. One of the implements of social security is the practice of medicine, since illness and disability are prime causes of insecurity. Recognizing that fact, the *JOURNAL* in 1941 commented frequently upon the progress of the New Zealand experiments in compulsory health insurance.² In 1942, we published a brief editorial summarizing the *Draft Interim Report* of the British Medical Association, which studied "wartime developments and their effects on the country's medical services."³ We pointed out the fact that there is now developing here a distinct challenge to the resourcefulness and fluidity of organized medicine.⁴

"We cannot hold back," said Dr. W. G. Cottis, "the stream of world-wide changes by standing pat. If we are to escape regimentation we must prove that we ourselves can and will meet every

legitimate demand for service in the field of medicine."⁵ To this end, he proposed an extension of medical service by the State of New York in the following ways: more hospitals for the care of cancer patients; extension of laboratory facilities; provision of diagnostic clinics in general medicine; more convalescent homes; more district or county health units.

Under the impact of war and the profound economic and social changes which follow in its train, it would indeed be surprising if proposals somewhat similar to the "Beveridge Report" did not arise here in the course of time. We, like the English, and, earlier, the Russians, are seemingly irrevocably embarked upon the road of social reform. It is quite possible, since social reform is not wholly free from purely human frailty and error, that the control of medical practice may pass into the hands of others than physicians. The manpower question and the distribution of medical personnel may well prove to be the crucial issue which will determine at least for the duration, and possibly thereafter, the character and course of medical practice in this country.

These issues involve many questions of individual and state's rights; they challenge the education laws of many states; they challenge the ingenuity, the patience, and the wisdom of many agencies of government, of medicine, of private enterprise of all sorts. Their proper solution would seem to call for cool hard-headedness, free debate, and a thorough understanding of the objectives sought. Issues of this sort cannot in the

nature of human affairs be completely divorced from political considerations. In the minds of many physicians, politics is synonymous with obliquity and broken promises; with exploitation of minorities; with the *argumentum ad hominem*. To most politicians the physician might seem to be a good egg but odd—definitely odd. It's all in the point of view. These differing opinions must nevertheless be somehow reconciled to a set of principles which can be made to work in the public interest.

Since to define these principles it is necessary to know where we are going in the matter of social and economic reform, it would seem to us to be the prime obligation of those responsible for them to state clearly and as simply as possible the objectives, if they know what they are. After these are stated if not comprehensively, at least comprehensibly, it seems then the obligation of medicine to revise such of its structure as needs revision so that it may fit workably into the new scheme of things. To plunge blindly in the dark does not seem to us who are immediately and responsibly concerned with the public and private health of the nation to be a proper way to approach reform of any sort whatever. War or no war.

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1. New York Times, Nov. 19, 1942.
2. New York State J. Med. 41: No. 6: 553; 41: No. 19: 1912; 41: No. 20: 2007-2008.
3. New York State J. Med. 42: No. 19: 1817-1818 (Oct. 1) 1942.
4. New York State J. Med. 42: No. 18: 1721 (Sept. 15) 1942.
5. New York State J. Med. 42: No. 22: 2099 ff. (Nov. 15) 1942.

Virus Pneumonias

The problem of pneumonias due to bacterial agents, although not completely solved, has nevertheless been gratifyingly modified in the majority of pneumonia patients. The causative organism can usually be demonstrated in the sputum or from nasopharyngeal cultures; the clinical and x-ray pictures have been well defined, and a definite regimen of treatment by chemotherapy and other measures has been standardized. The improvement in the prog-

nosis of bacterial pneumonias has been one of the most satisfying features of modern medicine.

A familiar pneumonic syndrome, strikingly different from the above, has been reported in the literature with increasing frequency.^{1,2,3,4,5} The following are some details in which this "atypical" pneumonia differs from the ordinary or classic pneumonia:

The incubation period may be longer, some-

times as long as two weeks. The cough is unproductive and apt to assume a hacking nature. The temperature curve is more irregular, rises slowly, and falls by lysis in from a few days to two to three weeks. Headache, photophobia, and sweating are frequent concomitant symptoms. The leukocyte count is essentially normal. No bacteria found in the sputum or rhinopharynx can be associated with the disease. The pneumonic signs and x-ray picture are those of scattered infiltrations, often of a migratory nature. Sulfonamide therapy is futile; complications are unusual; and the mortality is low. In the few autopsies reported, the histologic reaction of the involved lung has been composed chiefly of mononuclear cells, and no bacteria have been found.⁴ Cytoplasmic inclusion bodies have been observed in the lungs of infants dying of this form of pneumonia.⁵ Because of the atypical clinical and x-ray findings, the pathologic reports of a mononuclear reaction in the areas of pneumonitis, and the resemblance of this response to the pneumonias caused by known virus agents, the term "virus pneumonia" has been suggested for this peculiar but definite pneumonic syndrome.^{3,5}

Attempts to find the direct causative agent in such pneumonias have led to the isolation of a virus which differs from the previously known influenza virus.⁶ Further research into the virus that causes this form of pneumonitis, by means of immunologic studies and neutralizing tests, has brought to light a re-

markable cross relationship between this pneumonic virus, or viruses, and those of psittacosis, meningopneumonitis, and lymphogranuloma venereum.⁷ This opens a fascinating field in the study of pneumonias and their relationship to contagion to and from animals, including household pets.

Suffice it to say that it is of the utmost importance to be able to recognize or suspect this pneumonic syndrome and its epidemiologic implications. A simple, confirmatory test may be the demonstration of inclusion bodies in the large mononuclear cells in the stained sputum of patients who have this disease.⁵ One of the sulfa drugs may be employed, with the thought of preventing secondary invasions, which are not uncommon in influenza pneumonia.⁸ If a short period of observation reveals no effect from the drug, it is wise to discontinue its use; otherwise toxic effects may ensue, to the detriment of the patient's condition.

¹ Bowen, A.: *Am. J. Roentgenol.* 34: 168-174 (Aug.) 1935.

² Allen, W. H.: *Ann. Int. Med.* 10: 441-446 (Oct.) 1936.

³ Reiman, H. A.: *J.A.M.A.* 111: 2377 (Dec. 24) 1938; Reiman, H. A., and Havens, W. P.: *Arch. Int. Med.* 65: 138 (Jan.) 1940; *ibid.* 70: 513 (Oct.) 1942.

⁴ Longcope, W. T.: *Bull. Johns Hopkins Hosp.* 67: 268 (Oct.) 1940.

⁵ Adams, J. M., Green, R. G., Evans, C. A., and Beach, N.: *J. Pediat.* 20: 405 (April) 1942.

⁶ Francis, T., Jr., and Magill, T. P.: *J. Exper. Med.* 68: 147 (Aug.) 1938.

⁷ Rake, G., Eaton, M. D., and Shaffer, M. F.: *Proc. Soc. Exper. Biol. & Med.* 48: 528 (Nov.) 1941.

⁸ Finland, M., Petterson, M. D., and Strauss, E.: *Arch. Int. Med.* 70: 183 (Aug.) 1942.

"Our Hearts Were Young and Gay"

This engaging title, which appeared in the December, 1942, issue of the *Readers Digest*, caught our editorial attention. We read the article. It is a condensation from the book of Cornelia Otis Skinner and Emily Kimbrough. We hope that every doctor who reads our JOURNAL will take time to read that article* if not the book itself. We think it is the most inspiring human-life article that it has been our privilege as doctors to have read in many a long day.

We realize that this enthusiastic and superlative statement about an article in a non-medical magazine which tells about certain people and their personal experiences in England and France—with only a slight touch on

disease—is quite a bit out of the "ordinary," as the English say, to be recommended by medical editors. Therefore, we must state our reasons for this advice.

Our explanation is that we regard the story told in this article as of prime importance to every practicing physician in this country and the countries allied in this war. It shows some of the beauties of human life that existed before the present war started, in the most inimitable fashion that has ever been put forth in type—as we see it. It shows, too, as we see it, the color, the flavor, the humor, the beauty of life that the allied countries should seek to spread all over the world when this war has been won on the basis of the four freedoms.

Is this of interest to doctors of medicine?

* *Readers Digest*, December, 1942, page 149.

Yes, because mental and emotional health of their patients, as well as physical health, is what men and women over the ages have become physicians to secure for people.

Correspondence

OFFICE FOR EMERGENCY MANAGEMENT
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December 16, 1942

Dr. Peter Irving
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Dear Doctor Irving:

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Procurement and Assignment Service for
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1943

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The Annual Meeting will be held May 3-6, 1943, Hotel Statler, Buffalo, New York.
The list will be closed on February 15, 1943.

PETER IRVING, M.D., *Secretary*

EPICONDYLITIS HUMERI

K. G. HANSSON, M.D., New York City

EPICONDYLITIS is often erroneously spoken of as "tennis elbow." Epicondylitis humeri, properly defined, is a clinical entity with marked pain and tenderness about the epicondyle of the humerus and inability to make a tight fist or raise any weight with the forearm in pronation. It occurs after muscular exertion such as playing tennis, squash, badminton, polo, baseball, etc., or after some continuous labor, such as type-writing, bricklaying, painting, pressing clothes with heavy irons, and the like. Therefore, play or work entailing repeated pronation and supination of the forearm with the elbow extended, or repeated extension of the wrist, seems to run through the history of all patients who have the above complaints.

History

Epicondylitis has been the subject of investigation at least since 1896, when Bernhardt published a paper on a little-known form of occupational neuralgia. Osgood published an article on radiohumeral bursitis in 1922.¹ He removed the bursa in 3 cases, with indifferent results. Hohman, in 1927,² advocated rest for what he called tennis elbow. Cyriax, in 1936,³ and Mills, in 1937,⁴ advocated manipulation for the treatment of epicondylitis. Horwich and I, in 1930,⁵ reported 16 cases that were cured by immobilization with a cocked-up splint of the wrist. I had become interested in epicondylitis several years before because many of these cases were referred to me for physical therapy. The results obtained by various treatments were very unsatisfactory. In reviewing the literature, one is somewhat confused because all writers have not confined themselves to epicondylitis alone but have brought into the discussion almost all possible pathologies of the elbow. It therefore is important to define clearly the subject for our discussion. We shall exclude such pathologies as arthritis, peri arthritis, neuritis, neuralgia, and direct trauma, and confine ourselves to two varieties of epicondylitis—the *acute* or *subacute* type, from indirect trauma following athletic games (usually found in young, active people with hypertrophy of the muscles in the forearm),

and the *occupational chronic* type, found in older patients as a result of long-continued stress and strain on the extensors of the wrist and fingers.

Anatomy and Physiology

The interesting feature of the skeletal anatomy of the elbow and forearm is the marked degree of supination and pronation between the radius and the ulna. This is essentially due to the small, round head of the radius articulating with the proximal end of the ulna. These two bones are held so firmly together by tendinous and ligamentous structure that dislocations between them are practically unknown. In fact, the head of the radius will fracture before it will dislocate. The muscles concerned in this region take their origin from the condylar ridge and the external condyle of the humerus. These muscles, as they take their origin from above downward, are the brachioradialis or supinator longus, the extensor carpi radialis longus and brevis, the extensor digitorum communis, the extensor carpi ulnaris, and, distally, the anconeus. Beneath the conjoined tendon of these muscles is the supinator radii brevis.

These muscles receive their nerve supply from the radial nerve by means of branches that come off above the epicondyle. The sensory nerve supply also comes from the radial nerve. Most of these muscles are of the quick-action type, with relatively short muscle belly and long, slender tendon; but it is not generally realized how extensive the elasticity is in these muscles.

Six normal individuals measured from the external epicondyle to the tip of the middle finger—i.e., the length of the extensor digitorum communis in its maximum and minimum length—will show an average difference of 8.4 cm. This seems of importance because if a muscle is stretched 8.4 cm. and in addition is called on to receive a severe blow, something is apt to break.

Furthermore, in supinating the forearm, the head of the radius acts as a fulcrum, with the short lever from the head of the radius to the epicondyle on one side and the long lever from the head of the radius to the hand on the other side—or what is called a lever of the first order. This relation is about 1 to 10. Here lies a great disadvantage in

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 28, 1942.
From the Department of Surgery, New York Hospital-Cornell Medical College.

the mechanism of the elbow, the forearm, and the hand. Everything tends to give the epicondyle the short end, so to speak.

Phylogenesis.—If the human body is regarded as a living organism which has developed from a more primitive mechanism to a more and more complicated one, this change must be assumed to have been accomplished not overnight but over a long span of years.

In the vegetable kingdom, motion is a curiosity. The lower animals of the ameba class probably represent the most primitive activity, and as one goes up the evolutionary ladder he finds that certain of our present movements developed earlier than others. The characteristic in all of these early motions is that they are movements toward the center of the body; i.e., flexion and adduction—pronation and inversion. The nerve supply even in the embryonal stage of these muscles, which brings parts of the skeleton toward the center, is earlier and more easily distinguished than the corresponding nerves to muscles performing movements away from the body; i.e., the extensors and abductors. Because most of our work and exercises are movements toward the body, we have developed the flexors and adductors to a greater power than we have the corresponding extensors and abductors. This is demonstrated by comparing, for instance, the flexor and extensor strength of the fingers and toes, or the strong adduction in the shoulder and hip, with the comparatively weak abduction in the same joints.

If this phylogenetic study is applied to the flexors and extensors of the wrist and fingers and to the pronation and supination of the forearm, it will be found that the muscles arising from the internal epicondyle of the humerus are much stronger than those coming from the external epicondyle. Hand in hand with the phylogenesis of muscles goes the specific morbidity. By this we mean that the phylogenetically older muscles are less subject to pathologic change. In this connection one may recall the prevalence of dropwrist and dropfoot in peripheral neuritis, the attitude of the forearm and the hand in cerebral hemiplegia, and the common pathologic involvement of the deltoid muscles and the gluteus medius and maximus as compared with the corresponding adductors and flexors. It is therefore only rational to state that the external condyle of the humerus gives origin to phylogenetically young muscle, with corresponding specific morbidity.

When in our present-day activity, whether in sport or in work, our lately acquired ex-

tensors and supinators are called on for sudden feats of strength or long-continued work, these structures are apt to give way. Examples of this specific morbidity are deltoid myositis and myositis of the trapezius muscles, the lumbar muscles, and the gluteus medius. To this group belongs, undoubtedly, epicondylitis humeri.

Locus Minoris Resistentiae.—The question to be answered next is, Where does a muscle give way first? Or, in other words, Where is the weakest part of a muscle? Is it the bony connection or the point at which muscle tissue changes into connective tissue to form tendon? To solve this problem we performed a simple experiment on a rabbit. Under ether anesthesia the gastrocnemius muscle was dissected out. In the rabbit this is a relatively powerful muscle, with short muscle belly and long tendon. When the maximum pull is exerted on this muscle and then the point of physiologic extension is overstepped, a tear results, and this invariably took place at the bony connection and not in the muscle tissue, in the tendon, or where muscle fuses into tendon.

It seems rational to assume that the locus minoris resistentiae for a muscle is not the muscle itself but the point where it is fixed on the skeleton. We therefore thought that it would be possible to find some roentgen evidence; but after studying a number of anteroposterior and lateral views of patients with epicondylitis, we were disappointed. However, by taking oblique roentgenograms, tilting the x-ray tube 45 degrees, we were able to find a shadow over the epicondyle which was very suggestive of an avulsion in some cases.

Symptoms

Pain is the outstanding symptom. It seldom comes on directly after physical exertion, but the onset is gradual. *Traumatic epicondylitis* is characterized by pain over the lateral elbow when a tight fist is made, when indulging in a favorite sport, or even when lifting light objects, such as a glass of water. The pain is either sharp and lancinating or a dull ache. It is present when lifting is done with the forearm in pronation, and it is usually absent when lifting is done with a supinated forearm. There is no pain on resting. The area of tenderness varies. It may be located over (1) the distal end of the lateral epicondyle or (2) the posterior surface of the epicondyle. More commonly, the maximum tenderness is over (3) the anterior surface of

the epicondyle, (4) the radiohumeral joint line, (5) the radio-ulnar joint, or sometimes (6) the proximal epicondyle. The patient is usually well aware of the point of tenderness and can show it readily. It can easily be elicited by completely extending the elbow, by making a tight fist, or by extending the wrist against resistance. Some tenderness is often found over the extensor muscle group of the forearm. In *occupational epicondylitis* the pain is usually a dull ache, which is not present on rest but is always at its maximum when the patient is working at an occupation that consists of repeated, continuous contraction of the extensors of the wrists and fingers with the arm in pronation. The tenderness is more common over the whole course of the extensor group of muscles.

Diagnosis

The diagnosis is usually simple. The history of the injury is given often enough to establish the diagnosis. The kind of pain and the area of tenderness are characteristic. As I have said before, I am limiting my discussion to the acute or subacute so-called "*tennis elbow*" due to indirect trauma of specific activity requiring pronation and extension of the forearm, and the *occupational chronic epicondylitis*. Differential diagnosis must exclude the arthritides, such as chronic osteoarthritis and chondromatosis, rheumatoid, gonorrheal, luetic, tuberculous, gouty, or other types of arthritis. We must also exclude neuritis and neuralgia, such as occupational writer's cramp, toxic conditions, and infections from lead, nicotine, and alcohol, and also hypovitaminosis. X-rays are of little help. They are essentially negative. Only rarely do they show any periostitis, periostocortical tear, subperiosteal infraction, or Sudeck's bone atrophy.

Pathology

The anatomy reveals the muscles of the external epicondyle to wrist and fingers as quick-action muscles with short muscle bellies and long tendons. When too much tension is placed on these muscles, the tear occurs at their point of origin at the periosteum. The origin of the brachioradialis and extensor carpi radialis longus is almost proximal to the epicondyle, and the extensor carpi ulnaris lies deep to the extensor digitorum communis. The extensor carpi radialis brevis comes off most laterally on the condyle, and this is probably the muscle most often involved in the acute or subacute traumatic epicondylitis.

The pathology is probably a tear between the tendinous origin of the extensor carpi radialis brevis and the periosteum. A periostitis is produced, with more or less myofascitis and fibrositis in the muscle. A protective spasm is often found in the extensor muscles, which in turn will prevent complete extension of the elbow joint.

In occupational epicondylitis we probably deal with a chronic myositis of all the extensor muscles to wrist and fingers. A fibrositis may or may not be present. A study of the leverage of wrist extension and of the pronation of the forearm also favors the theory of a periostitis and a myofascitis.

Treatment

Immobilization.—In a previous article⁵ I analyzed 74 cases of epicondylitis treated by various forms of physical therapy in which the results were rather discouraging. In the 16 cases that were relieved by means of immobilization, the immobilization was accomplished by means of a cocked-up splint which shortened the extensor muscles from the lateral epicondyle and prevented full pronation. The physiologic rest thus gives the injured periosteum and muscles time to heal. Any myositis of the extensor muscles is treated with superficial and deep heat, followed by fairly vigorous massage. The patient should abstain from the game or occupation that was the causative agent. Immobilization is the treatment of choice in occupational epicondylitis.

Manipulation.—Since 1936 several articles on epicondylitis have been published in England and Australia. The interesting part of these papers was the high percentage of cures claimed to be achieved by a very simple manipulative treatment. Mills advocated a manipulation with the elbow in extension, the forearm pronated, and the wrist flexed. Cyriax, in a very comprehensive article, claimed nearly consistent cures with manipulation of the elbow in extension and the forearm in supination. The 67 cases I am reporting are not all mine, but they have been checked very carefully. A review of these *manipulated cases of epicondylitis* reveals the following figures:

Total cases manipulated	67
Female, 45 per cent; male, 55 per cent	
Manipulations per patient	1-14
Average age	43.7
Cases due to games	77 per cent
Cases due to occupation	23 per cent
Manipulated cases—cured	15 per cent
Manipulated cases—not improved	85 per cent

My conclusion is that manipulation probably has its place in the treatment of epicondylitis

of traumatic origin, if we employ it in the proper cases. It is my impression that patients presenting lack of complete extension in the elbow due to spasms of extensor muscles are the cases that should be manipulated until complete extension in the elbow is restored. Manipulations are rarely effective in the occupational type of epicondylitis.

Injection.—Injection of 0.5 cc. of 1 per cent procaine solution under the extensor tendon group, followed by 0.3 cc. of 5 per cent sodium morrhuate, has been recommended. However, any injection can give only temporary relief; therefore this procedure does not seem very rational.

Operation.—I have had no experience with cases in which operation was the treatment employed. The principle is to divide the tendon of origin of the extensor group of muscles where they come off the external epicondyle.

Conclusions

1. The pathology in traumatic epicondylitis is undoubtedly a partial rupture of fibrous origin of the extensor-supinator group of the forearm with periostitis and fibrositis. In occupational epicondylitis the pathology is probably more of a chronic myositis.

2. Manipulations may be attempted in traumatic cases in which extension is limited, owing to muscle spasm.

3. Immobilization is still the treatment of choice in most cases, with additional physical therapy for restoration of normal muscle tissue.

4. Injection of novocain gives only temporary relief, and operations are seldom indicated.

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Discussion

Dr. I. D. Horwich, New York City—The divergent opinions concerning the nature of this lesion reflect themselves in the therapeutic proposals that have been made by various clinics. Suggested types of treatment include (1) cocked-up splintage, (2) manipulative maneuvers, and (3) operative procedures. One writer ventured a truth in a nutshell when he said that epicondylitis is a lesion which tends to heal with and without treatment.

At a symposium on tennis elbow given by the Royal Society of Medicine in 1929, the chairman, in closing a lengthy discussion, remarked that if time had permitted he would have liked to disagree with all of the previous speakers. (No doubt our chairman will be so inclined!) One editor remarked that the causes of tennis elbow are various; its pathology obscure; and its cure uncertain. Dr. Hansson has, I believe, clarified these matters to a great extent.

The diagnosis is simple and the symptoms are characteristic, yet this condition is often confused with other elbow pathologies. The most characteristic local finding is point tenderness. A sign that I consider pathognomonic is that the patient is unable to elevate a chair with the forearm pronated, but can lift a chair high off the floor with the supinated hand and forearm. When one considers the pathology as described by Dr. Hansson, this is quite understandable.

As regards the bursal theory embraced by Osgood and others, I believe that what is taken to be a bursa on operation is in reality an upward prolongation of the synovial sac of the elbow joint.

Considering manipulative maneuvers, Mills stresses the importance of an audible click as a criterion of a successful manipulation—forceable extension of the pronated forearm with the wrist flexed. Cyriax, arguing on theoretic grounds, believes that the position of physiologic rest on a cocked-up splint may predispose to recurrence of the condition by permitting healing to take place with shortening of the involved muscles. I do not know why this should be any more likely to occur in epicondylitis than in other deformities in which tenorrhaphy is utilized. Cyriax tries to convert a partial muscular tear into a complete one. After deep friction massage over the epicondyle, he extends and supinates the forearm and then sharply adducts the elbow into cubitus varus.

However, both Mills and Cyriax feel, as Dr. Hansson has said, that manipulation should be done only in those patients who show a slight springy resistance to full extension of the elbow.

In occasional protracted cases, I have used weekly manipulation as an adjunct to the immobilization treatment with a cocked-up splint. This did not appear to speed up the recovery.

Dr. Henry B. Crawford, Rochester, New York—I consider it a privilege to discuss this interesting and well-presented paper. Dr. Hansson's phylogenetic theory for the vulnerability of the extensor and abductor tendons is particularly appealing.

In attempting to criticize constructively this well-presented logic as to the pathology and treatment of the commonly called "tennis elbow," there is only one question that comes to my mind, and that is: Should we try to differentiate between (1) a subperiosteal fracture, (2) a calcareous degeneration of the tendons, similar to that which we commonly find in the

supraspinatus tendon, and (3) a radiohumeral bursitis?

This question has more than arm-chair theorizing for its basis. In reviewing the last 20 cases (see Table 1) diagnosed as "radiohumeral bursitis" in our office, I was surprised to find abnormal calcification in 9. Still more surprising to me was the direct correlation between the finding of calcification in direct contact with the epicondyle and a history of onset of pain immediately following a bruise on the epicondyle at least a month prior to the x-ray examination. There were 7 such histories, of which I have films. They all show this type of calcification.

There were 2 that showed diffuse calcareous deposits in the tendon. These did not give a definite history of onset of pain following injury, and one of these had complete, immediate, and lasting relief from aspiration. The other had no treatment in our office.

Those patients who showed no changes in x-ray gave histories of direct bumps within twelve days prior to examination, or onset with muscular strain such as that experienced in ironing, playing squash or bat ball, sawing wood, etc.

I would agree that splinting the wrist in the cocked-up position and immobilizing the elbow to prevent further irritation would be indicated in all three of these pathologic entities.

However, if such a differential diagnosis could be made, it would seem to me that we might expect splinting alone to be the preferable treatment for the epicondylar fracture. We might

TABLE 1.—TWENTY CASES OF "RADIOHUMERAL BURSITIS"

Patient	Injury	Time Elapsed Between Injury and X-ray	X-ray
McCann	Struck elbow	12 days	Negative
Holst	Bump	6 days	Negative
Bilger	Sawing wood	5 weeks	Negative
Calkins	Playing batball	4 weeks	Negative
Cohen	Bruise (?)	2 months	Negative
Braverman	None	3 months	Negative
Stevenson	None	5 weeks	Negative
Yackel	Twist	1 day	Negative
Hills	Squash	10 weeks	Negative
Murphy	None	6 months	Negative
Meyer	None	2 days	Negative
Asnass	Bump	2 months	Calcification epicondyle
Schultz	Bump	1½ years	Calcification epicondyle
Peters	Bump	3 months	Calcification epicondyle
Zizzo	Bump	7 months	Calcification epicondyle
Weining	Bump	1 month	Calcification epicondyle
Bauer	None	4 months	Calcification epicondyle
Tosch	Fell on hands	4 days	Old epicondylar separation
Simpson	Bump (?)	3 weeks (?) (pain 4 days)	Calcification of tendon
Thompson	None	2 months	Calcification of tendon

expect heat and massage or aspiration of calcareous debris to be of some added value in speeding up the recovery in the cases of calcareous degeneration of the tendon, and we might consider exploration for a radiohumeral bursitis only in those few cases that did not respond to conservative treatment.

RHEUMATIC FEVER AND HEART DISEASE PROGRAM

An intensive educational program on rheumatic fever and heart disease has been launched by the Metropolitan Life Insurance Company, with the cooperation and advice of the American Heart Association, the Academy of Pediatrics, and the Crippled Children's Division of the U.S. Children's Bureau.

The purpose of this activity is twofold. Through popular literature, addresses, radio programs, news releases, and advertisements, the public will be acquainted with the newer knowledge of rheumatic fever and rheumatic heart disease and their special wartime significance in overcrowded and insanitary environments. The program will stress the importance of early diagnosis, proper care for rheumatic fever victims, and the declining mortality rate among children in the younger age groups. The Metropolitan is using the services of its Field Staff in some three thousand communities, and it expects to reach over one million homes.

An equally important objective of this program will be to distribute to the medical profession up-to-date literature covering various aspects of the rheumatic fever problem. The printed ma-

terials for physicians will include a clinical booklet which sets forth in concise form the modern concept of the disease, criteria for its early diagnosis and treatment, methods of managing the disease and recognizing its cardiac involvements. This booklet is being developed in collaboration with special committees of the American Heart Association and the Academy of Pediatrics. The membership of these committees includes: Drs. T. Duckett Jones and Edward F. Bland, of Boston; Arthur C. DeGraff, Ann G. Kuttner, Homer Swift, and A. T. Martin, of New York City; Ethel C. Dunham and O. F. Hedley, of Washington, D.C.; Hugh McCulloch, of St. Louis; and Stanley Gibson, of Chicago. Others being consulted include Dr. May G. Wilson, of New York City; Dr. Albert Kaiser, of Rochester; Dr. David Rutstein, of Albany; and Dr. Elizabeth Huse, of Washington, D.C.

This program marks the first time that a national educational campaign has been undertaken to reach the general public and the medical profession with rheumatic fever literature, especially prepared according to the needs and interests of each group.

SPINAL FLUID EXAMINATIONS

Report of Investigation of Procedures Followed Throughout the United States

W. BAYARD LONG, M.D., and JACOB A. GOLDBERG, Ph.D., New York City

THE Association of Syphilis Clinics,* under the chairmanship of Dr. Howard Fox, has been interested in the routine procedures that are followed in making spinal punctures on patients attending syphilis clinics in New York City. For some years there has been distinct variation in methods used in hospitals and unaffiliated dispensaries which operate syphilis clinics. In certain clinics, where hospitalization has been the routine procedure, there often has resulted a backlog of several hundred patients awaiting their turn for admission to the one or two beds assigned for this purpose. This has brought about the failure of many syphilis patients to be given the benefit of a spinal fluid examination or, at least, considerable delay in carrying out this requisite step. Studies made in syphilis clinics of several thousand charts emphasized this lapse.

Every syphilologist agrees that it is important to examine the spinal fluid of a patient with syphilis. If it becomes necessary to hospitalize the patients for even twenty-four hours in order to perform a spinal puncture, the number of such punctures will be enormously reduced. This has been found to be the case for two specific reasons: (1) the lack of adequate hospital beds for this purpose; (2) many patients who would submit to spinal puncture in the dispensary are unwilling or unable to spend the night in the hospital for that purpose. It is generally assumed that after the spinal puncture it is advisable for the patient to rest at least one-half hour and then go home without delay. Some physicians prefer to have the patient rest for two or three hours. While it is true that a patient may faint in the street after a spinal puncture, this may also occur after an injection of arsphenamine or numerous other medical or surgical procedures. Although an occasional patient becomes sick on the way home following a spinal puncture, it is not sufficient reason to make a hard and fast rule that all such patients must be hospitalized. The question of doing the most good to the vast majority of persons with syphilis outweighs any incon-

venience that may be suffered by a small minority. The members of the Association of Syphilis Clinics have expressed the opinion that the performance of spinal punctures on ambulatory patients is a safe procedure. This decision was particularly emphasized at a meeting of the Association of Syphilis Clinics held on May 26, 1939. At this meeting the Association passed a resolution to the effect that "The Association of Syphilis Clinics goes on record as agreed that lumbar punctures should be routine in clinics." This motion was carried unanimously. Subsequent to this meeting the words of this resolution were sent to all directors and superintendents of hospitals and dispensaries in the city in which syphilis is treated. Within a short time favorable results followed the receipt of this letter, some hospitals instituting the procedure recommended in the resolution. However, hospitalization is still the routine procedure in certain institutions.

In the attempt to learn what was common procedure throughout the country, an inquiry was sent to the venereal disease control medical officers of all the state departments of health and to the health commissioner of the District of Columbia. Reports from the departments of health of the various states have been received, and they are included in the following pages. It will be noted from the tabulation that, with few exceptions, spinal punctures are routine in the clinics.

It is hoped that further evidence of common practice in New York City and throughout the country may induce those who are still insistent upon hospitalization to modify their procedures and make it possible for larger numbers of syphilis patients to be given spinal fluid examinations. Even if adequate hospital facilities are available, it is not deemed desirable to involve the patient in unnecessary expense, or to put the hospital to the expense of hospitalizing indigent or quasi-indigent patients or those for whose hospitalization full costs cannot be provided.

Summary

It is generally recognized that it is necessary to make spinal fluid examinations during

Chairman and Secretary, respectively, Social Hygiene Committee, New York Tuberculosis and Health Association.

* Affiliated with Social Hygiene Committee, New York Tuberculosis and Health Association.

SPINAL FLUID EXAMINATIONS

State	In Clinic	In Hospital	Rest Period	Remarks
Alabama	X	—	At least 2 hours	Advised to rest 24 hours
Arizona	X	—	—	—
Arkansas	X	—	None	On all early cases following completion of second course of arsenical therapy
California	X	—	None	On all early latent, late latent, and late cases before treatment is started, check all early cases at end of six months
Colorado	X	—	Half hour	Beds as available but never used
Connecticut	X	—	—	State Department of Health encourages spinal punctures in clinics
Delaware	X	—	None	Advised to go home and go to bed
Dist of Col	X	—	None	Rest in bed for 24 hours
Florida	X	X	—	Discretionary
Georgia	X	X	Few hours	Only in some clinics affiliations hospitalize patients for a few hours, very few stay overnight
Idaho	X	—	—	Nearly all patients examined
Illinois	X	X	—	Clinics equipped for spinal punctures, some physicians prefer to hospitalize patients for one day
Indiana	X	X	Few hours	Both plans followed, clinic plan recommended with short rest period, except in special cases
Iowa	X	—	—	Routine procedure, few reactions, none hospitalized
Kansas	X	X	One hour	Most clinic physicians insist on hospitalization, one large clinic does cisternal punctures on every patient in clinic
Kentucky	X	—	—	In 130 clinics spinal punctures are done in clinic
Louisiana	X	—	None	Rest in bed at home for 24 hours advised
Maine	X	X	—	Recommend spinal punctures in clinics, many "clinic" patients treated in physicians' private offices who prefer hospitalization
Maryland	X	X	—	As a general rule in hospitals some clinicians have developed technic and do spinal punctures in clinics
Massachusetts	X	X	Varies	Recommend spinal punctures in clinic and patient to be sent home immediately, some keep patient overnight
Michigan	X	—	—	About one-half of the patients get at least one spinal puncture during course of treatment
Minnesota	X	X	Varies	Increasing tendency to do spinal punctures in clinics
Mississippi	X	—	Varies	Spinal punctures in 200 clinics, no hospitalization
Missouri	X	X	—	Recommend spinal punctures in clinics, number of patients hospitalized
Montana	—	X	—	Hospitalization routine
Nebraska	X	—	—	Spinal puncture during first six months of treatment.
Nevada	X	—	—	Only one clinic in Reno; another planned.
New Hampshire	—	X	—	Hospitalization routine.
New Jersey	X	X	Two hours	Recommend spinal punctures in clinics, hospitalization still common where cisternals are done in clinic, highest percentage of patients obtain spinal puncture before discharge
New Mexico	X	—	—	No provision made for hospitalization.
New York	X	X	Varies	In New York City spinal punctures largely done in clinics, with tendency to change from hospitalization requirement State Department of Health for some years has urged lumbar punctures be made in clinic in smaller communities general practice is to hospitalize patients, with growing tendency toward clinic plan
North Carolina	X	—	None	Recommend rest at home for 48 hours
North Dakota	X	—	1 to 2 hours	Only one syphilis clinic in state, rest on abdomen in clinic for one to two hours
Ohio	X	X	—	Recommend spinal punctures in clinic, clinics in larger cities usually follow this plan, in small communities there is a tendency to hospitalization because of lack of well-trained personnel
Oklahoma	X	—	—	In 66 state-sponsored clinics spinal punctures in clinic, only few reactions
Oregon	X	—	—	State Board of Health recommends spinal punctures as outpatient procedure
Pennsylvania	X	X	—	Large institutions usually make spinal punctures in clinic, rest for two hours in some
Rhode Island	X	X	—	Majority of clinics make spinal punctures in clinic, very few patients hospitalized
South Carolina	X	X	—	In clinics located in cities both plans followed, spinal punctures found impractical in rural areas
South Dakota	X	?	—	No clinics, all treatment in private offices of physicians, number of physicians make spinal punctures in offices, data on hospitalization not available
Tennessee	X	X	—	In majority of communities patient is not hospitalized
Texas	X	—	None	Recommend spinal punctures to be made in clinic, patients advised to go home and lie down
Utah	X	—	—	Spinal punctures routine after six months of treatment, repeated every six months
Vermont	—	X	—	Usual custom to hospitalize proper facilities not available in state outside of hospitals
Virginia	X	—	—	Recommend spinal punctures be made in clinic on early cases at end of six months of treatment
Washington	X	—	None	Patient sent home at once, recommend at least 24 hours in bed
West Virginia	X	—	None	Patient sent home at once, instructed to remain in bed remainder of day, and following day if headache develops.
Wisconsin	X	X	—	About 95 per cent of patients hospitalized
Wyoming	X	X	—	Plan left to judgment of clinic directors, many spinal punctures made in clinic with considerable success

the course of treatment for syphilis. The older and more conservative method, first applied when salvarsan came into use, was to make of this technic a hospital procedure. The data presented in the preceding pages definitely indicate that it is more or less a general plan throughout the country to make spinal punctures in clinics, allowing for a period of rest. When hospitalization is required, as has been found in some clinics, many of the patients are not given the benefit of a spinal fluid examination or, if such is given, it is only after considerable delay.

Another factor that must be taken into consideration is that particularly for patients attending public clinics, whose income or available funds are limited, the cost to the

patient for overnight stay in a hospital may be much beyond his or her means. Where the hospitals provide the beds free of charge, the cost to the hospital must be taken into consideration. Patients who are required to stay out for twelve or twenty-four hours, which is the usual routine, are often in danger of losing their jobs, or certainly of losing a day's pay.

It is hoped that this memorandum may be of some help in convincing medical boards, hospital administrators, and staff members of the desirability of following the plan now generally followed in New York City and even to a greater extent throughout the country—and that is to make spinal punctures in the clinic, allowing for necessary periods of rest thereafter if deemed desirable.

Prize Essay

THE Lucien Howe Prize will be open for competition at the next Annual Meeting of the Medical Society of the State of New York, May 3, 1943, in Buffalo, New York. This prize of \$100 will be presented for the best original contribution on some branch of surgery, preferably ophthalmology. The author need not be a member of the Medical Society of the State of New York.

The following conditions must be observed:

Essays shall be typewritten or printed, with the name of the prize for which the essay is submitted, and the only means of identification of the author shall be a motto or other device. The essay shall be accompanied by a sealed envelope having on the outside the same motto or device and containing the name and address of the writer.

If the Committee considers that no essay or contribution is worthy of a prize, it will not be awarded.

Any essay that may win the prize automatically becomes the property of the Medical Society of the State of New York "to be published as it may direct."

All essays must be presented not later than March 1, 1943, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 292 Madison Avenue, New York City.

CHAS. GORDON HEYD, M.D., *Chairman*
Committee on Prize Essays

SURGERY IN THE AGED

FREDERICK W. BANCROFT, M.D., New York City

IN ATTEMPTING to discuss surgery of the aged one must first define the term "aged," and this depends somewhat on the age of the observer. I can remember well, during the first World War, thinking that the medical consultants of the A.E.F. were old men, but a recent study of their ages shows that almost all were under 55 years. At present this age seems young to me.

Labor considers 40 as old age. For the purpose of this paper, I shall consider from 65 years onward as the aged, recognizing, nevertheless, that we have all seen patients of 50 years who were much older in their arteries, their outlook on life, and their minds than others who were over 70.

Isidore Cohn presents one of the latter old-young group as follows: "A letter written by a lady to her pastor expresses very well the difference between the aging process and chronology. She states: 'This is an old lady writing to you. At least, the house she lives in is 82. Considering its age the house is in thoroughly good repair, though I don't think it looks quite as well as it did 50 years ago. I have neglected to keep it painted, as so many women of this generation do. To tell the truth, I have been spending my time on interior decorations. The windows I look out of are fairly clear, and I am glad to tell you I have a reliable tenant in the upper story.' This is a familiar experience to the surgeon. It is the condition of the patient, rather than the age, which is the determining factor in operative mortality in the aged."

The problem of geriatrics is an ever-enlarging one. More people live in the cancer, diabetic, cardiorespiratory and arteriosclerotic period than ever before, and this army will increase unless the present World War changes the living conditions in America.

We now have 6,500,000 people of 65 years or over, and, if the present figures of longevity continue on their normal upcourse, by 1980 it has been estimated that we will have 25,000,000 of this age alive.

Statistics indicate that the life expectancy in the United States has changed considerably in the last century. In 1850 the life expectancy of white males was about 39 years. By 1930 the average duration of life had increased

to 59 years. In 1850 the total population of the United States was about 23,000,000. Of this number, less than 1,500,000 reached the period between 50 and 64, and only six-tenths of a million were over 65 years of age. In 1930, of a total population of 123,000,000, 14,000,000 reached the ages of 50 to 64, and 6,600,000 were 65 and over.

In other words, in 1850 the population between 50 and 64 years of age was 6 per cent. In 1900 this had increased to 9 per cent, and by 1930 the average of the population between 50 and 64 years of age had reached 11 per cent. Thus, the increase in population over 65 had advanced, between 1850 and 1930, from 2 per cent to 5 per cent.

With this increased number of patients reaching the aged group, the knowledge of biochemistry, the improvement in anesthesia, and the delicate touch of the surgeon have made it possible for surgeons not only to keep up with the parade, but to enlarge safely the scope of surgical treatment.

Before entering upon a detailed discussion of surgical procedures it is advisable to lay down certain principles that may guide our general course.

The following indications for surgery for this age group will be accepted, I believe, by the majority of surgeons. These are operations devised for:

1. The relief of pain.
2. Relief of infection, if the operative procedure is not too hazardous.
3. Mobilization of a patient out of bed, because the dangers of being bedridden are greater than the operative risk. The main example of this type of surgery is in the internal fixation of fractures of the neck of the femur in order to get the patient up.
4. Excision of cancer.
5. Relief of gangrene in peripheral vascular diseases.
6. Relief of chronic obstructive diseases, as the hypertrophied prostate, pyloric obstruction, etc.

While the above are general principles that may be followed, there are exceptions to most of them. The following is an example of such an exception. A frail old man of 84 years of age was admitted to the City Hospital of New York with obstruction of the colon due to

malignancy. Operation would necessitate certainly a colostomy, and possibly a second-stage resection. The problem was presented to the patient that operation would necessitate the draining of the bowel on the abdomen, with considerable risk from this operation, and a later procedure of greater magnitude would be necessary should he survive the first operation and desire to have the fecal current re-established. He stated frankly that he had lived his life and did not desire surgery. He died about four days later, but had been given morphine enough to have a comfortable exodus.

Other exceptions are those of frail old people with gangrene of the extremities. It is obvious to the surgeon that such a patient will never be able to navigate either by crutches or artificial leg. I believe that such a patient should have the problem presented to him of both extremes—the one of surgery and the one without surgery—and be allowed to make a decision. One difficulty encountered in this type of patient is that the children desire to make the decision for their parents. If the patient is conscious, it is his or her sole right to decide which procedure should be carried out. It is true that the children may influence the parent's decision, but the parent, in the end, is alone responsible.

If operations are considered in the aged, whether they be emergency or elective procedures, preoperative knowledge of the patients' blood chemistry is much more important than in the more active years of life. Traumatic accidents are fewer in this group because of their more sedentary type of life, and infection travels less rapidly because of the fibrous degeneration of the tissues. As an example, acute appendicitis occurs occasionally in an elderly person. It may develop with very few signs and not be recognized until an abscess has been formed. The risk of diffuse peritonitis is less than in the younger age. In such conditions the drainage of the abscess is a simple procedure. It is only when the vascular supply of a part is interfered with, as in gangrene or strangulated hernia, that we must make haste in operating.

If we have time, and we usually do, to prepare a patient for operation, what preoperative laboratory work is advisable, and what preoperative preparation should be instituted?

Before attempting the laboratory studies, Boyd makes the following observations: "Careful study of the patient, his gait, his acumen of hearing, of seeing, or motion, his posture, his cold or warm hands and feet,

his very outlook on life—all mean volumes if we can interpret them. The build of the patient, his present weight, condition of the skin, his intellectual apprehension of situations, his perspective, his ability to absorb external impressions with poise, his very facial expressions—all are great aids to the observing doctor. A tortuous, bulging, bounding temporal artery, moist or dry skin, a shaking hand, a quavering voice, a markedly underweight, or overweight condition, a lack of confidence or a superabundance of confidence, all spell either success or disaster."

The following factors should be considered in examining the patient: (1) an estimate of the cardiac reserve. Can a patient walk around the block with ease, or can he climb a flight of stairs without too much exhaustion? (2) An estimate of his ability to take an anesthetic, and a careful study of the type of anesthesia for the patient's age and surgical condition.

The genitourinary system should be carefully analyzed. In elderly men one must consider, if an operation on the extraordinary tract is contemplated, whether the anesthesia or bed rest, or the operative trauma, may create the remaining edema of the prostate which may become an immediate postoperative problem. These patients should have routine blood chemistry examinations, including study of the urea nitrogen, nonprotein nitrogen, and plasma protein determinations. The plasma protein is often low in the aged because of their altered eating habits due to changes in dentures. The protein content may be surprisingly low, and we may be able to avoid eventrations of the abdominal wound, rupture of the suture line if intestinal anastomoses are made, by correcting the hypoproteinemia by either increasing the protein intake by mouth or, if this is impossible, by either blood or plasma transfusions.

A careful study of the vitamin intake of the patient before admission may also save us from similar pitfalls. Nicotinic acid, 50 mg. three times a day, may change a bewildered elderly person into a satisfactory surgical risk.

Anesthesia.—With all of the improved anesthetic agents at our disposal, the problem of anesthesia in geriatrics probably requires more surgical judgment than the operative procedure itself. In abdominal cases the use of novocain, local and block anesthesia, supplemented by either gas or intravenous anesthesia, is probably, in the majority of cases, the safest procedure. Spinal anesthesia in many cases works like a charm, but where

there is hypertension with a high diastolic pressure, the pulse pressure may be so diminished that it is difficult to restore it—even by heroic means. Cyclopropane, often supplemented with a minimum dose of avertin, will in many cases prove the anesthesia of choice.

In surgery of the extremities a new anesthetic principle has recently come into prominence which may save many lives and solve a difficult problem. Cryotherapy—that is, the application of cold—to an extremity, has proved to be a very useful adjunct in peripheral vascular diseases. If a tourniquet is applied, and the leg packed in ice for two hours preceding a lower thigh amputation, or one and a half hours preceding a lower leg amputation, it has been shown by Crossman, Ruggiero, and Allen that amputation may be performed with very little anesthetic risk. The patient has practically no shock and can return to a normal diet immediately after the operation. In these cases it is advisable to keep ice on the extremity for two or three days postoperatively, in order to keep the metabolism at a low enough rate so that the diminished circulation may supply sufficient nourishment.

Gentleness of handling tissues in the aged is most important. Their vessels are sclerotic, and their tissues often friable. In abdominal procedures the mesentery tears easily, and unnecessary time may be used in attempting to get bleeders in the omentum or mesocolon which have been caused by rough handling. Utmost delicacy of touch must be used. The sulfonamide drugs, both local and parenteral, are of great aid in the treatment of infections, but one must remember that the aged are more apt to develop late deficiency diseases through prolonged use of the sulfonamide remedies, and therefore they should be discontinued as soon as possible.

Treatment.—During the operative procedure it is advisable, if the procedure is to last for any length of time, to administer either blood, plasma, or glucose intravenously in order to prevent the insidious onset of shock. As the myocardium is not so adaptable to increased blood pressures, one must be careful to give the intravenous solutions slowly in order not to embarrass the right heart.

Adrenal cortex extract given before and after operation is often advisable. Operative procedures should be based on the minimum surgery that will give the patient relief. Life expectancy of a 75-year-old patient is not very long. In cancer surgery one must be sure

to give the patient sufficient relief to justify the procedure. Burton Lee has shown that cancer of the breast in elderly women who have a long history of a lump is a relatively benign disease as compared with the same condition in a younger individual. Usually in many of these elderly people the excision of the breast itself, without axillary dissection, will give them a life expectancy as long as one would naturally expect. I have recently heard from a woman of 80 who had a large carcinoma of the breast and would not have been able to withstand a radical resection. I removed her breast three years ago and at the present time she is in fairly good health.

Cancer of the gastrointestinal organs presents a more difficult problem. One wonders whether palliative operations for gastric or intestinal lesions are sometimes justified. I have performed gastroenterostomy for pyloric obstruction due to cancer and wondered whether the hospitalization and the suffering were worth the short period of time the patient was given relief. Two or three times I have attempted a jejunostomy on an inoperable carcinoma of the stomach with obstruction and have been disappointed with the results. The cramps resulting from tube feeding and the inability of the old tissues to absorb nourishment given through a jejunostomy tube have made me feel that this procedure is not warranted. If I were in the late seventies and had a carcinoma of the stomach which was irremovable, I am sure I would prefer morphinism to any palliative procedure. On the other hand, if the carcinoma of the stomach is nonremovable but can be excluded from the cardia by either suture or the use of the von Petz clamp, and a gastrojejunostomy can be made between the cardia and the jejunum, relief may be given the patient for a considerable period of time. By this procedure the sloughing, carcinomatous mass in the prepyloric area of the stomach is excluded from the mixture of food, and the patient may enjoy the intake of food, and have a relatively long period of happiness. This procedure, I think, is justifiable.

In obstructive lesions of the lower bowel one must, I believe, analyze the patient's age, the amount of life expectancy that one can give by relief, and then, perhaps, in a humane manner, present the problem to the patient for his own decision.

Postoperative Treatment.—Hyperventilation of the lungs with oxygen and carbon dioxide is often a procedure of considerable advantage. Elderly patients must be kept

moving in order not to develop a hypostatic pneumonia, and they should be got out of bed at the earliest possible moment. If their condition permits, feeding should be done as soon after operation as possible. No matter how we give nourishment, there is no substitute for food by mouth.

Alvarez has shown that the discharge of food from the pylorus into the duodenum produces a peristaltic wave throughout the intestines. Distention is caused largely by air swallowing, but lack of food is also a prominent factor, because if there is stasis bacteria multiply and fermentation occurs and gas is created; therefore, food given early, and the early evacuation of the lower bowel, deters distention.

It is important that the abdominal dressings be loosely applied, because distention, with a tight abdominal dressing compressing the intestines, not only favors obstruction but also slows the blood stream through the vena cava. We all know that venous stasis is one of the main factors creating thrombosis and embolism. Therefore, our efforts should be directed toward preventing distention, active motion of the legs, often against resistance as described by Pool, and copious use of fluids as a prophylactic measure. If a patient runs an unexplained low elevation of temperature postoperatively for more than four or five days, it has been my practice to administer sodium

thiosulfate as a prophylaxis against thrombosis. After a study of many hundreds of cases I am convinced that this measure does not do any harm but does do a great deal of good. It has been my good fortune never to have had an embolus develop in a patient who had had sodium thiosulfate given prophylactically.

It might be assumed from the foregoing that the writer is opposed to radical surgery in the old-age group. This is far from the case. I am thoroughly in favor of subtotal gastrectomies, colectomies, abdominoperineal resections and radical mastectomies, or other surgical procedures where operation offers the patient a reasonable life expectancy and where the patient is in good condition and can be hospitalized in an institution where he can have proper preoperative therapy and where satisfactory care can be given in the event of a postoperative emergency.

Conclusions

Surgery of the aged, with modern public health precautions, will have an ever-increasing scope. Careful preoperative preparation, wise consideration in the choice of an anesthetic, a careful nontraumatic approach, and, finally, well-advised postoperative measures will diminish the mortality and morbidity in this group.

DR. FISHBEIN'S STORK CLUB

There are confirmed collectors of everything from collar buttons to auk eggs, but Dr. Morris Fishbein, of Chicago, spokesman for the American Medical Association and editor of the *J.A.M.A.*, is probably the world's only collector of odd and amusing birth announcements. Parents who send out "stork calling cards" usually include their obstetricians, who, in turn, forward their favorites to Dr. Fishbein. Today, his collection numbers more than 1,000! He thinks the best ones are the boners, like this one which appeared in a Winnipeg newspaper: "BROWN: Born to Mr. and Mrs. S. G. Brown, of Dublin, Ireland, formerly of Winnipeg, on June 28, a son, by special cable." Among other wacky announcements in the collection are a special diaper ration book, a one-page newspaper greeting the new arrival with headlines, and a dinner menu.

One of America's busiest doctors, St. Louis-born Fishbein has never practiced on his own.

But he manages to write a book a year, serves on seventeen medical and research committees, acts as associate professor of clinical medicine at the University of Chicago, delivers ten speeches a month, goes over thirty-five medical manuscripts a day. To maintain his pace, he sleeps only six hours a night, talks fast (200 to 320 words a minute), and reads so rapidly he breezes through *Gone With the Wind* in less than five hours (average—four pages a minute). He enjoys exotic foods in moderation and limits his drinks to two a day. He plays good golf (handicap twelve) and expert bridge (he often gives handicaps to his opponents). His personal prescription for relaxation is writing 15,000 words weekly in his diary, which chronicles the activities of a modern "Dr. Pepys." Strange as it seems, neither Dr. nor Mrs. Fishbein, when their two sons and two daughters were born, remembered to send out stork cards themselves.—*J. Med. Soc. of Cape May County, N.J.*

AN OUTBREAK OF ACUTE FLUORIDE POISONING

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ONE of the earliest reports on the poisonous qualities of fluorine salts originated in this country in 1899, with a paper in the *Journal of the American Chemical Society*, by Baldwin.¹ Since that date, isolated instances of poisoning, both fatal and nonfatal, have been described. These reports have usually concerned individuals or families. The following one is presented because of the considerable number of persons involved and because it illustrates once again the danger of having fluorine salts available in cooking establishments.

On December 26, 1939, our attention was called to the sudden occurrence of numerous cases of gastroenteric illness among inmates of a New York State reform school. The institution at the time was comprised of 631 male inmates, aged 16 to 22, the staff consisting of 150 persons. On investigation, it was found that 69 persons had been affected in the course of two and one-half hours after the noon meal of that day. All were inmates and all were among the group who had eaten at an early serving of the noon meal.

The symptoms varied in severity, but a typical patient experienced a very sudden onset of nausea, followed immediately by repeated vomiting, with severe cramplike pain in the epigastrium, and later by one or two loose bowel movements. Weakness and sweating were prominent symptoms. Headache, salivation, and lacrimation were present, although none of them in extreme degree. The frequency of vomiting varied from one to fifteen times, with a tendency for repeated retching to occur after the stomach had become empty. A very few patients failed to vomit, complaining only of nausea. None developed a true diarrhea, and nearly half the patients had no bowel evacuation during the course of the illness. There was no blood seen in the vomitus and neither blood nor mucus in the bowel discharge. None of the patients was febrile. Although weakness was complained of in all cases, in none was it carried to

the point of complete and persistent prostration. The severity of the symptoms was attested to by the fact that many patients were highly apprehensive and fearful of impending dissolution. Recovery was remarkably prompt, and except for residual weakness most patients had recovered in about three hours after onset and by the next morning all were completely well, except that anorexia and vague epigastric uneasiness and soreness were complained of rather generally for several days.

Since the nature of the inciting agent was not known at the time, it was not possible to institute any specific therapy. As it was apparent that some irritative agent had been ingested, some of the early patients were given syrup of ipecac, but since it became quickly obvious that evacuation of stomach contents was proceeding spontaneously, this was discontinued.

The period of incubation, if one might call it that, was short. Several patients vomited before they were able to rise from the table. A number more did not reach their quarters before they were overcome, and most were seized within ten minutes of finishing their dessert. In only one instance was the time between lunch and illness greater than a half hour, one patient reporting that he had not been affected until two and one-half hours after eating.

There was no doubt that some article of food ingested at the noon meal was responsible for the syndrome. In this instance, circumstances were such that it was possible to determine the offending food with complete accuracy and assurance. The noon meal consisted of frankfurters, sauerkraut, gravy, bread, potatoes, and cocoa, with chocolate pudding served for dessert. Each of these foods had been prepared as a single lot in the morning preceding the meal. Some of the inmates, however, were served shortly before noon. This group, a total of 143, was made up of workers in the kitchen, dining room, and bakery who ate in the regular dining room, and of those inmates confined to the hospital, to quarantine, or to the disciplinary division, each of the latter groups being served in their respective quarters. Cases were distributed with equal frequency among each of

Read before the Third Session of the Food and Nutrition Section of the American Public Health Association, October 16, 1941.

District State Health Officer, New York State Department of Health, Kingston, New York, and Senior Physician, New York State Department of Correction, Coxsackie, New York, respectively.

these four groups, all having been attacked simultaneously shortly after completion of the meal.

As soon as it was learned that a considerable number of the boys were sick, the noon meal was blamed and several of the inmates volunteered the information that they believed the chocolate pudding was at fault, although they were unable to state definitely that the pudding tasted unusual. A quick survey by one of us tended to confirm this suspicion, and the remaining 488 inmates were served precisely the same foods from the same kettles, except that the chocolate pudding was omitted and canned loganberries were substituted as the dessert. Not a single one of the 488 became sick. A careful investigation revealed no other variations in the meal between the two servings aside from the difference of twenty to sixty minutes in serving time and the substitution of the canned loganberries for the chocolate pudding. These facts in themselves established beyond reasonable doubt that the chocolate pudding was the offending article, and for this reason a complete food history was not taken from each of the inmates. It was determined, however, that of the 143 inmates who ate at the first serving, 96 had eaten the chocolate pudding. The 69 cases of illness occurred among the 96 who gave a history of having eaten the pudding. There was no illness among the 47 inmates at the first serving who ate no pudding.

As a matter of routine investigation of a gastroenteritis outbreak, the water, food, and milk supplies were looked into, and the question of open sores or illness in the kitchen personnel was checked. Nothing of significance was thus elicited.

The chocolate pudding was mixed at 6:00 A.M. on December 26. It was made of 4 cans of a commercially prepared chocolate mixture, 3 pounds of cocoa powder, 2 forty-quart cans of milk, 12½ pounds of cornstarch, 20 quarts of water, and sugar to taste. This mixture was cooked with constant stirring, from fifteen to twenty-five minutes. Raisins and vanilla were added subsequent to cooking. The mixture was then poured into 27 cooling pans and left at room temperature for one hour. Another cook entered the kitchen at 7:30 A.M., scrutinized the pudding, pronounced it too thin, ordered the cooling pans to be emptied back into the heater, and then added a panful of flour. The mixture was again heated and cooked, then repoured into the same 27 cooling pans, and left at room temperature for one hour, after which it was

put in the refrigerator to cool before serving. The preparation of the chocolate pudding was under the general supervision of two employee cooks. The actual making of it, however, was entrusted entirely to 2 inmates. It was of interest that one of the inmates who prepared the mixture ate the pudding and became ill, while the other ate none of the pudding and did not become ill.

As stated previously, one of us had ordered the chocolate pudding withdrawn from circulation. However, this order had been anticipated and all but one of the cooling pans full of pudding had been poured down the sink as soon as cases of illness began to appear. There seemed to be a general knowledge among some of the kitchen personnel that the chocolate pudding was at fault. These circumstances, together with the extremely short incubation periods, made it appear almost certain that someone in the kitchen had deliberately added an obnoxious substance to the pudding and that we were dealing with chemical rather than bacterial poisoning. The only poisonous substance found anywhere on the premises was a large bag of sodium fluoride that was used as roach powder and kept in a corner of the kitchen at all times, along with a large blower containing about a pound of the powder. Three separate samples of the remaining pudding taken from different parts of the cooling pan were forwarded to the State Health Department Laboratory for examination for poisonous substances. One specimen was found to contain 0.1 of 1 per cent of sodium fluoride, another 0.2 of 1 per cent, and the other 0.3 of 1 per cent, apparently indicating that the substance had not been thoroughly mixed into the pudding. Since the average amount of pudding served weighed approximately 200 Gm., it would appear that those eating the full portion of pudding ingested roughly from 0.2 to 0.6 of 1 Gm., which is considerably less than the reported fatal dose of sodium fluoride.

Twenty-seven inmates who ate the pudding apparently experienced no symptoms at all. It is possible that some portions of the pudding contained even less than 0.1 of 1 per cent, making the total dose less than 0.2 of 1 Gm., which may be somewhat less than the average nauseating dose. *It is also possible that the presence of large amounts of milk in the pudding may have acted as a partial antidote to the effects of the fluoride.* The fact that symptoms did occur in so high a percentage of cases when the salt was administered in a vehicle consisting largely of milk tends to cast

some doubt on the efficacy of milk as an antidote. It must be admitted, however, that no clear conclusions can be drawn on this point, as certain parts of the pudding may have contained much larger percentages than those analyzed.

Two additional cases should be noted. The storeroom clerk expressed doubt that the chocolate pudding had caused difficulty and ate a small portion consisting of about 4 teaspoonfuls. Within a half hour he experienced a moderately severe nausea with mild epigastric pains but developed no other symptoms and quickly recovered. One of the employee cooks was apparently convinced that the pudding had caused difficulties but doubted greatly that the roach powder was the offending poison. As a practical test, he added approximately one-quarter teaspoonful of the roach powder to a glass of water and then drank between one-quarter and one-third of the mixture. Within twenty minutes, he was seized by a violent nausea and epigastric pain, accompanied by salivation, lacrimation, headache, and weakness. He immediately reported for treatment and was given a large dose of ipecac, following which he vomited repeatedly and recovered promptly.

One of the inmate cooks, as he was later being paroled, admitted privately to one of us that he had scooped up as much roach powder as he could hold in one hand and cast it into the pudding. He was hazy as to when in the process the salt was added. His purpose, as stated, was "to get even" with another inmate.

A review of the literature reveals that the two most commonly used fluorine salts are sodium fluoride and sodium fluosilicate. Both salts are popular as roach powders. Sodium fluosilicate, weight for weight, is considerably more toxic than sodium fluoride, the difference being due to the relatively greater fluorine content of the former chemical.²

The toxicity of fluorine compounds is believed to lie chiefly in the ability of the fluoride ion to precipitate calcium and produce calcium deprivation, although it is certain that there are other important direct toxic effects.

Symptoms of fluoride poisoning generally follow within a few minutes after the chemical is swallowed and consist of nausea, epigastric pain, violent vomiting, and weakness, with headache, salivation, lacrimation, and sweating, followed shortly by diarrhea. In severe cases the vomitus is usually bloody and there may be cyanosis of the skin and

mucous membranes. Purpuric spots may appear on the skin. Death is usually preceded by convulsions and may occur within an hour or be delayed as long as twenty hours. A number of cases have been reported in which, following several hours of treatment, the patient appeared to be well on the way to recovery, and then suddenly died.

It is difficult to estimate the minimum lethal dose of sodium fluoride because of its tendency to cause repeated vomiting, but it is believed to be about 3 Gm., the lethal dose of sodium fluosilicate being considerably less.

Postmortem findings include premature rigor mortis, hemorrhagic gastritis, petechial hemorrhages of the skin, and continued oozing of blood from cut surfaces of muscles. Degenerative changes in the liver and kidneys have also been reported, as well as hemorrhages into the lungs.

It is generally conceded that soluble calcium compounds are the best antidote for fluoride poisoning. Calcium has a twofold effect, as it precipitates soluble fluoride salts as the relatively insoluble calcium fluoride, and supplies calcium to replace that already removed from the body. Calcium salts or calcium hydroxide should be given by lavage, and repeated infusions of soluble calcium salt should be given by vein.

In our own case, it was not possible to determine the probable nature of the poison until the patients appeared to be recovering. Hence, no attempt at specific therapy was made. In view of the reports of sudden death occurring several hours after apparent symptomatic recovery, it would appear that strenuous treatment should be instituted for every case in which fluoride poisoning is suspected.

The fluorine salts have been mistaken for a wide variety of substances and added to foods unwittingly. Some of these are sodium bicarbonate,³ powdered sugar,⁴ cornstarch,⁵ and baking powder.⁶ The salts have also been mistaken for various saline laxatives,^{5,6,7,8} on a number of occasions. In the particular instance reviewed here, the substance was added to foodstuffs deliberately, but it does illustrate the undesirability of having fluorine salts available in cooking establishments, particularly where irresponsible persons have access to both the poison and the foods.

A law has been enacted in several states requiring that colored pigments be added to the fluorine salts before they are sold. It would appear that this law is worthy of being generally copied.⁹

Summary

An outbreak of fluoride poisoning involving 71 nonfatal cases is described, in which the illness was caused by the deliberate addition of sodium fluoride to chocolate pudding. The outbreak calls attention to the fact that explosive outbreaks of afebrile gastroenteritis may be caused by chemical poisons rather than by the more commonly encountered staphylococcal toxin. It also directs attention to the danger of permitting access by irresponsible persons or children to fluoride or fluosilicate salts, or of having the salts avail-

able where they may be mistaken for food-stuffs or laxatives.

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TROPIC DISEASE MENACE SPREAD BY AIR TRAVEL

Largely as a result of the expansion in air travel, the parasitic diseases of the tropics, including malaria and sleeping sickness, have become a potential menace to the health of inhabitants of other sections of the globe, according to Dr. James T. Culbertson, a member of the department of bacteriology of the School of Medicine of Columbia University.

Dr. Culbertson discussed the universal threat presented by the ancient scourges of mankind in a handbook entitled "Medical Parasitology" that has just been published by the Columbia University Press. Fortunately, Dr. Culbertson noted, specific drugs which lead to the cure of most of the infections are known to medical science. In time, he predicted, vaccination may render men relatively resistant to the organisms and possibly absolutely immune to infection. Disease-bearing parasites are a particular menace to the United States members of armed forces stationed in tropical and semitropical areas, Dr. Culbertson stated.

"All the parasitic infections now seem likely to experience a new and widespread distribution to fresh areas as a consequence of the rise in business and travel which, in large part, air transport has made possible," Dr. Culbertson writes. "Workers or travelers returning by airplane from

areas long notorious as disease centers may not reveal symptoms of the infections they have contracted until after they have reached home. The chance of the spread of the disease to their relatives and other associates at home is thus enhanced.

"An added hazard is the transportation, unnoticed, aboard long-distance planes of infected flies, mosquitos, fleas, or other disease vectors which remain entirely capable of transmitting the diseases in the regions to which they are carried.

"Thus far, the most significant results of the application of principles of immunity to the parasitic infections of man have been in the diagnosis of disease," Dr. Culbertson continued. . . . "As yet, with no parasitic infection has the vaccination of man been tried significantly."

"The greatest hope of protection against these dread maladies will come through a more adequate diffusion of knowledge of the agents which cause them," Dr. Culbertson asserted, adding that up to now the nation's medical schools have offered "comparatively little instruction" in the study of the causes of the parasitic diseases. Education for the layman as well as the physician is "probably in the end the most effective method of prophylaxis," Dr. Culbertson says.—*New York Herald Tribune*, October 19

BY THE CLOCK?

Doctor: "How often does the pain come?"

Patient: "Every four or five minutes."

Doctor: "And lasts?"

Patient: "Well, a quarter of an hour, at least."

FAMILY AFFAIR

Doctor: "Only relatives are allowed to see him. Are you a member of his family?"

Girl: "Oh, I'm his sister."

Doctor: "Oh, really? I'm so glad to meet you. . . I'm his father."

STUDIES IN THROMBO-EMBOLIZATION

II:* Observations on the Use of Dicumarol† (3,3' Methylenebis (4-Hydroxycoumarin)) in Embolization. Report of Five Cases

SHEPARD SHAPIRO, M.D., and BENJAMIN SHERWIN, M.D., New York City

THE recent series of publications by Link and his associates^{1,2,3,4,5} of the Wisconsin Experiment Station reveal an outstanding work in which they isolated, identified, and synthesized the causative agent of the hemorrhagic sweet clover disease of cattle.^{6,7,8,9,10} They showed that when the substance 3,3' methylenebis (4-hydroxycoumarin), which they isolated from spoiled sweet clover hay,¹ is introduced into the body, it produces the following effects:

1. It decreases the prothrombin level (or activity).
2. It prolongs the whole blood coagulation time.
3. When given to healthy experimental animals (in therapeutic doses, intermittently), it apparently does not give rise to permanent injury.
4. When given continuously (in adequate doses), it induces the hemorrhagic phenomena characteristic of the sweet clover disease.

By virtue of the above characteristics 1, 2, and 3, this compound promises to be of value in the control and treatment of thrombotic and thrombo-embolic processes.

Preliminary reports of experimental and clinical trials with this *in vivo* anticoagulant have recently appeared.^{11,12} In this communication are recorded observations in which it was used in pulmonary thrombo-embolization and to prevent the development of emboli.

In July, 1940, shortly after the synthesis of the substance was realized, one of us (S. S.) had the opportunity to discuss the possible therapeutic use of this compound with Professor Link and his associates. After its activity was demonstrated,^{11,12} through the kindness of Professor Link we obtained a supply of the 3,3' methylenebis (4-hydroxycoumarin).

The prothrombin time of the blood plasma was estimated by the technic described by Shapiro, Sherwin, Redish, and Campbell,¹³

which is an extension of the method described by the Wisconsin group.² It takes into consideration the prothrombin time of (a) whole plasma, (b) diluted plasma, and (c) the difference between these two. By this procedure it has been possible to determine an optimum point for therapeutic effect free of the danger of bleeding.

Briefly stated this is the procedure (see Table 1):

(A) Using thromboplastin-calcium chloride mixture:² 4.5 ml. fresh blood obtained by venipuncture are added to 0.5 ml. M/10 sodium oxalate. Clear plasma is obtained by centrifuging. 0.1 ml. whole plasma kept at 37 C. is quickly added to 0.2 ml. thromboplastin-calcium chloride mixture (also at 37 C.) and the time which elapses before the fibrin clot forms is noted with a stop watch. The identical procedure is then repeated, using 0.1 ml. of 12.5 per cent plasma in place of whole plasma.

(B) Using snake venom:¹⁴ 0.1 ml. whole plasma is added to 0.1 ml. venom and placed in the constant temperature bath at 37 C. for five to ten minutes. To this is quickly added 0.1 ml. M/40 calcium chloride which has been kept at the same temperature, and the time elapsing before the fibrin clot formation is noted with a stop watch. The same procedure is repeated with 0.1 ml. of 25 per cent plasma in place of whole plasma.

Estimates are done in duplicate.

It has been found by this method that a safe and effective dosage level is that at which the diluted plasma prothrombin time is markedly prolonged (two to three times normal), while that of the whole plasma is only moderately extended (not to exceed double the normal value). It has been found that as the concentration (or activity) of prothrombin decreases, the difference between the whole and diluted plasma prothrombin time increases. It has also been found that increase in the plasma prothrombin level (or activity) is a factor which causes a reduction in the extent of the difference between the prothrombin time of whole and that of diluted plasma.

Serial estimations of prothrombin after surgery have revealed the following facts: Com-

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* Paper I of this series was published in the *Annals of Surgery* 116: 175 (August) 1942.

† Dicumarol is the collective trade mark of the Wisconsin Alumni Research Foundation, which controls the use thereof.

TABLE 1

	Brain Thromboplastin-Calcium Chloride			Russell Snake Viper Venom		
	Whole Plasma	12.5% Plasma	Difference	Whole Plasma	25% Plasma	Difference
Mean	24 sec.	41.4 sec.	18.5 sec.	19.5 sec.	29 sec.	10.5 sec.
Standard deviation	±2.3	±3.8	±3.5	±2.9	±4.6	±2.5

mencing about the fifth or sixth day after operation and occurring as late as the twelfth or fourteenth postoperative day, there is a more or less sudden shortening of the difference between the prothrombin time of whole and diluted plasma, due chiefly to a reduction of the prothrombin time of the diluted plasma. Statistics have shown that this is the interval when postoperative thrombo-embolization most commonly occurs. It was found further that in those instances in which pulmonary infarction had developed the difference in prothrombin time between that of whole and diluted plasma had become reduced to a point below that of normals.¹⁴

The reports of Jorpes and of Murray have shown that anticoagulant therapy may be effective in both the prevention and treatment of thrombotic processes.¹⁵ They used heparin, a substance which must be given by continuous intravenous administration, which

in certain individuals causes adverse reactions, and which is costly in price. Dicumarol, which was used in the present series, is given by mouth, causes no ill effects (as far as is known) in proper dosage, and is low in cost. The procedure for prothrombin estimation herein described is well suited for following the dosage levels of Dicumarol.

In this report are presented 5 cases of embolization treated with Dicumarol. The purpose of this treatment was primarily to prevent further embolization.

Case 1.—H. F., a 32-year-old white woman, was subjected to a pelvic repair and dilatation and curettage on December 1, 1941. Two days later a fever arose, varying between 99 and 100.5 F. On the third day tenderness over the right saphenous vein was observed. The temperature increased to 101.5 F. On the sixth postoperative day the patient was suddenly seized with a sharp pain in the left axilla. She became

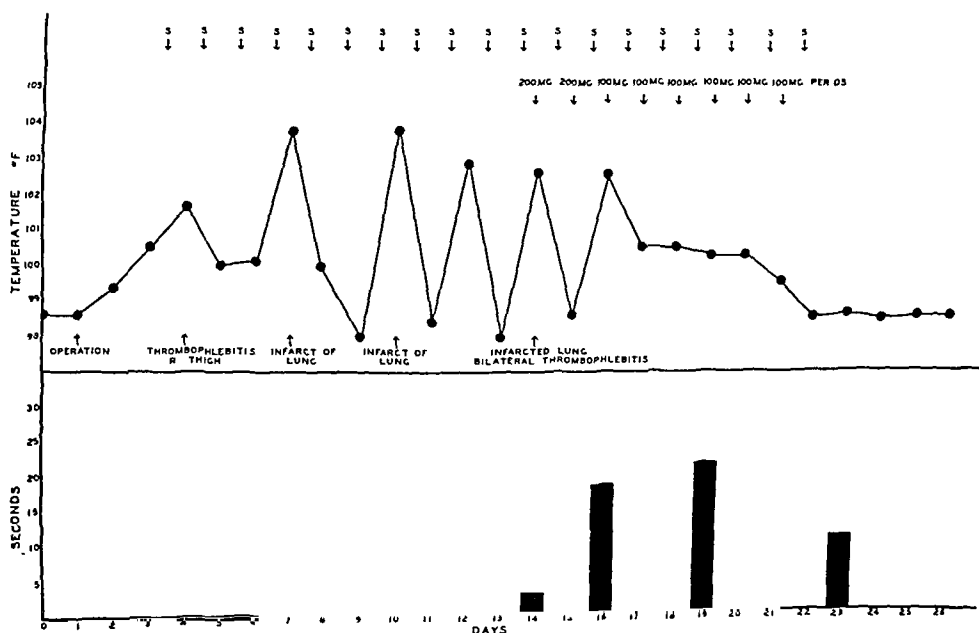


CHART 1. (Case 1) Represents temperature curve and differences (seconds) in prothrombin time between whole and diluted (25 per cent) plasma. Snake venom was used. Normal mean difference = 10.5 seconds. Note shortened difference at time of pulmonary infarction. S = Sulfathiazole. 200 and 100 mg. dosages = Dicumarol.

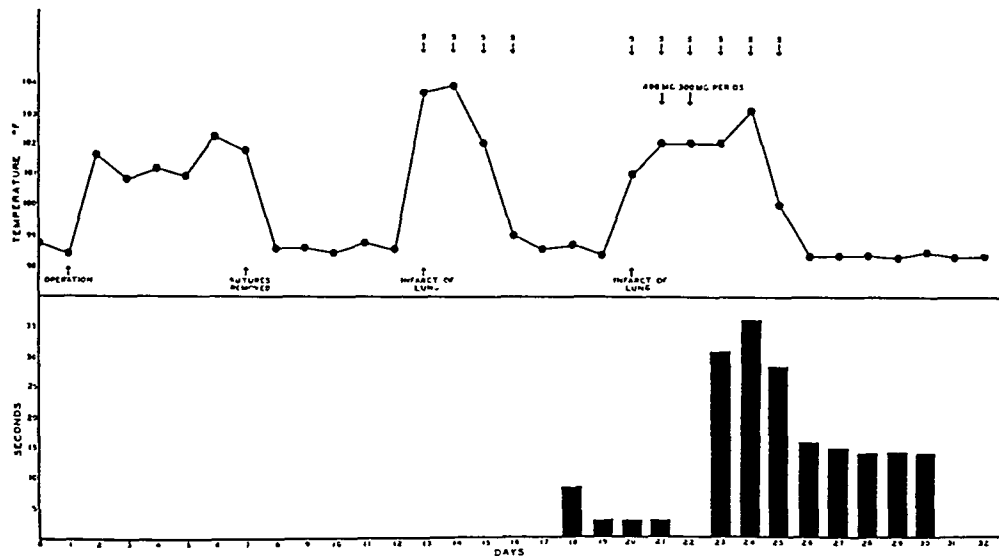


CHART 2. (Case 2) Temperature curve and simultaneous differences in prothrombin time between whole and diluted (25 per cent) plasma. Snake venom was used. Note progressive shortening of prothrombin time differences preceding and at time of pulmonary infarction. S = Sulfathiazole. 400 and 300 mg. dosages = Dicumarol.

pale and developed shallow, rapid respirations of about 40 per minute and thready pulse of about 170 per minute. There was heard a pleuritic rub and many moist rales over this area. Pulmonary infarction was believed to have occurred, involving the left lower lobe. Sulfathiazole was administered by mouth. The temperature receded, becoming normal within about two days. On December 10 (eighth postoperative day) there was a sudden recurrence of the pain in the left chest, followed by the appearance of dullness, distant breath sounds, and pleuro-pericardial friction rub. The temperature was 103.8 F. An electrocardiogram did not reveal a pattern indicative of coronary artery occlusion. The diagnosis of pulmonary infarction (second episode) was made, and the sulfathiazole (which had not been withdrawn) was continued. The fever acquired an intermittent character, rising to 102.4 F. each day. On December 15, the following findings were noted: The patient appeared toxic. Both right and left saphenous veins were palpably thickened and tender, with the overlying skin red and edematous. The lower abdomen bilaterally was considerably tender. The temperature was 102.6 F. The heart rate 130 per minute, and of regular rhythm. No murmurs were heard. Over the base of the left lung there was noted dullness, diminished breath and voice sounds, and limited descent of the diaphragm. A few fine and large moist rales were audible over this area. The blood pressure was 120/80. No abnormal constituents were found in the urine. The difference in prothrombin time between that of whole and

diluted (25 per cent) plasma¹⁴ was 2.5 seconds (normal 10.5 seconds). The platelet count was 350,000.

The diagnosis was bilateral saphenous vein thrombophlebitis and thrombo-embolization of the lower lobe of the left lung with resulting infarction.

Dicumarol was given orally for eight consecutive days. The dosages and prothrombin differences and restoration are depicted in Chart 1. Sulfathiazole was continued during the entire period.

The first change observed was an alteration in character of the temperature curve, which began to flatten simultaneously with the initial prolongation of prothrombin time. Within about one week the physical signs in the left lung cleared, and the temperature became normal and remained at this level. No evidences of additional emboli appeared. Six months later the patient reported that she was well and had been asymptomatic in the interval.

Case 2.—S. G., a white man 29 years of age, was operated upon December 8, 1941, for an umbilical hernia. A moderate febrile temperature occurred following operation and receded after the discharge of serum from the wound when the sutures were removed on the sixth day. On the tenth postoperative day the patient was suddenly seized with severe cutting pain in the left lower axilla. Accompanying this was rapid, shallow breathing and expectoration of a slight amount of blood-tinged sputum. There were diminished breath and voice sounds, and a few moist rales were noted over the base of the left

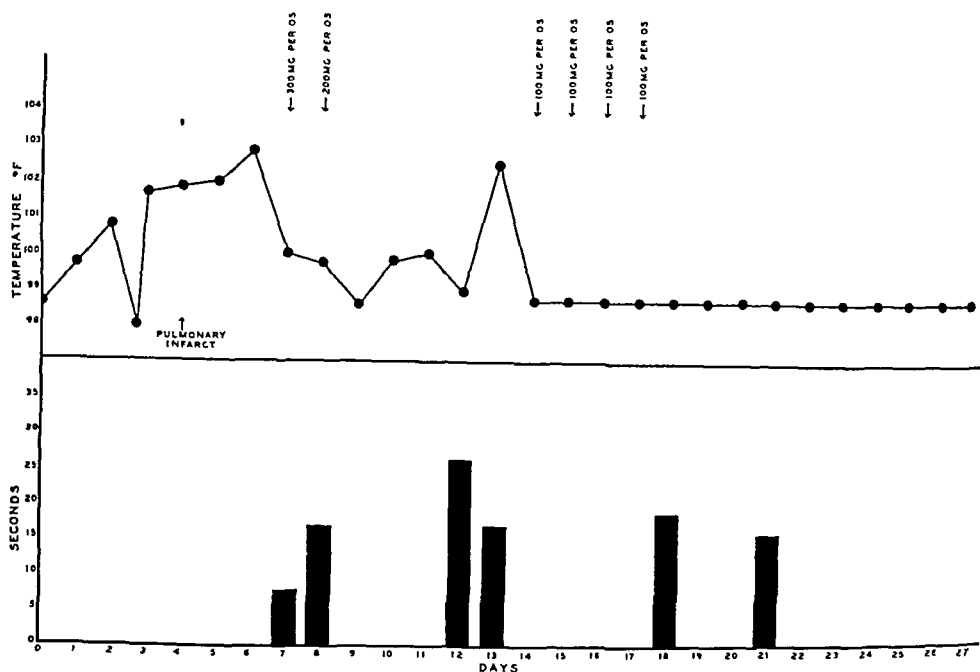


CHART 3. (Case 3) Temperature curve and differences (seconds) in prothrombin time between whole and 12.5 per cent plasma. Thromboplastin-calcium chloride mixture used. Normal mean difference = 18.5 seconds. 300, 200, and 100 mg. dosages = Dicumarol.

lung posteriorly. Pulmonary infarction was believed to have occurred and sulfathiazole was administered by mouth. Within one week the temperature became normal and the physical signs in the chest cleared almost entirely. No evidences of thrombophlebitis were detected.

On December 23 prothrombin estimations¹³ were made. These were repeated on succeeding days, as noted in Chart 2. The difference between the prothrombin time of whole and diluted plasma (25 per cent) diminished from 8 seconds on December 25 to 2 seconds on the following day. On December 27, there was sudden recurrence of the sharp pleuritic pain, tachycardia, rapid, shallow breathing, and temperature of 101.8 F. Numerous moist rales, impaired resonance, and distant broncho-vesicular breath sounds were heard over the left lung posteriorly, extending from the angle of the scapula to the base of the lung. It was believed that a second episode of pulmonary infarction had taken place. This was confirmed by a roentgenogram of the chest. Sulfathiazole therapy was continued, and on December 28 oral administration of Dicumarol was started. An irregular pyrexia persisted until December 31, after which it began to recede, reaching normal on January 3 and remaining at this level. Within one week all abnormal physical signs in the left lung cleared. The effect upon prothrombin time by Dicumarol as indicated by the extent of the difference between whole and diluted (25 per cent) plasma is shown in Chart 2.

The urine was consistently free of abnormal constituents. On December 22, hemoglobin was 14 Gm.; red blood cells 4,992,000; white blood cells 22,600; segmented neutrophils 80 per cent; nonsegmented 7 per cent; lymphocytes 10 per cent; eosinophils 3 per cent. On December 26 the white blood cell count was 15,500; segmented neutrophils 65 per cent; nonsegmented 1 per cent; eosinophils 4 per cent; lymphocytes 29 per cent; basophils 1 per cent. No additional emboli were detected after the Dicumarol effect became discernible in the prothrombin estimations. The patient was seen four months later. He was symptom-free and reported that he had been well during the intervening period.

Case 3.—J. K., a 58-year-old white woman, developed a dull ache in the left thigh on February 26, 1942. The pain grew worse and the thigh became red and swollen on its inner surface. On March 3 a diagnosis of saphenous vein phlebitis was made. The patient was put to bed and continuous wet dressings were applied to the area.

The past history was irrelevant, except that the patient had had varicose veins for several years and about eighteen months previously had been confined to bed for five weeks owing to "inflammation of the left lower leg."

The patient was obese, the lungs were clear and resonant throughout, the heart was regular and presented a systolic murmur at the base. The blood pressure was 150/90.

Over the left thigh there was redness and

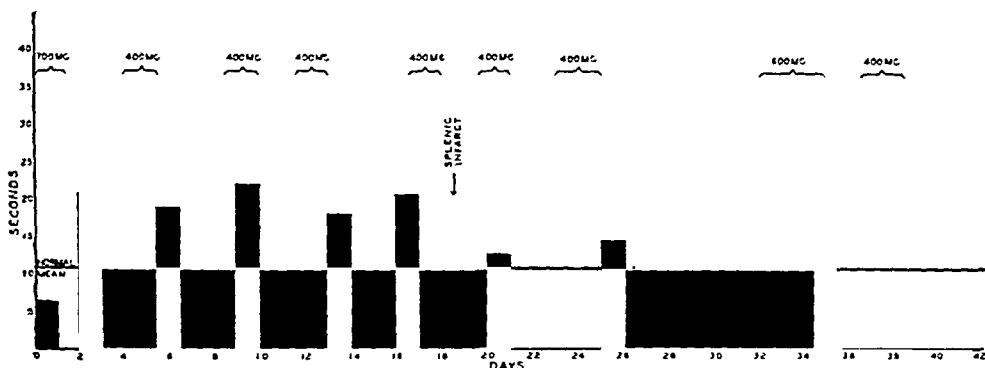


CHART 4. (Case 4) Differences in prothrombin time between whole and diluted plasma. Dosages indicated are of Dicumarol.

edema and tenderness along the course of the saphenous vein.

On March 7 there occurred suddenly a sharp pain over the right chest, tachypnea, expectoration of blood-tinged sputum, and a rise in temperature to 101 F. There were heard diminished breath sounds in the right paravertebral region of the right base. A diagnosis of pulmonary embolus and infarction was made. X-ray examination supported this opinion. On March 10 there was broncho-vesicular breathing and dullness over the midportion of the right chest posteriorly. The left saphenous vein showed redness, tenderness, and swelling over its course. Dicumarol was administered orally, beginning March 10. On March 14, the plebitis of the left saphenous vein was less pronounced; the redness and swelling were especially diminished. Over the right lower chest were heard impaired resonance and numerous moist rales.

On March 21, there was still blood-streaked sputum, and a few moist rales were heard over the right base, although the x-ray film of the chest revealed almost complete clearing of the previously noted shadow (infarct).

The temperature curve, shown in Chart 3, reached the height of 102.8 F. on March 9 and gradually fell to normal by March 12, at which level it remained, with the exception of an unexplained rise to 102.8 F. for several hours on March 16.

On March 25, the evidence of pulmonary pathology had completely cleared, the temperature continued to be normal, the expectoration of blood-stained sputum had ceased, and the left saphenous vein was palpably thickened but free of evidences of acute inflammation.

The urine on several occasions showed rare granular casts and a few red and white blood cells. The specific gravity varied between 1.002 and 1.008 during the entire period of observation.

The blood count on March 9 was 78 per cent hemoglobin; red blood cells 4,030,000; and white blood cells 12,000; segmented neutrophils, 74 per cent; nonsegmented 1 per cent;

lymphocytes 17 per cent; monocytes 7 per cent; eosinophils 2 per cent. Platelets numbered 400,000. On March 31, the platelets were 250,000. The blood chemistry (serum proteins, cholesterol, nonprotein nitrogen, and sugar) were all normal. Chart 3 shows the difference between the prothrombin times of whole and 12.5 per cent plasma during the period of Dicumarol feedings.

No additional emboli were observed after the Dicumarol was administered.

Case 4.—A. L. was a 45-year-old white man who had been under treatment since August, 1941, for subacute bacterial endocarditis (*streptococcus viridans* bacteremia) which had become engrafted upon a rheumatic valvulitis. Sulphanyl compounds were well tolerated; hence the patient received these almost continuously from the time of onset in August.

The findings on December 31, 1941, were as follows: A chronically ill, pale man showing numerous petechiae distributed throughout the skin, especially that of the fingers, and in the conjunctivae. The spleen was enlarged and extremely tender (recent embolization); the liver was palpable three fingerbreadths below the free margin of the ribs. The heart was enlarged, accelerated, and of regular rhythm. Aortic diastolic and mitral systolic and presystolic murmurs were present. A few basal moist rales were heard over both lungs. An electrocardiogram showed regular sinus rhythm, left axis deviation, and prolongation of the P-R interval. The hemoglobin was 72 per cent; red blood cells 3,450,000. Because the patient was showing evidences of frequent embolization (almost daily) it was decided to administer the *in vivo* anticoagulant in an effort to lessen this.

Dicumarol feedings were instituted on December 31, 1941. The patient received a total of 4 Gm. in three months, until March 30, 1942, when he died of heart failure. He lived out of the city and consequently it was possible to obtain plasma for prothrombin estimations only at intervals of several days. These estimations were made by the method above described. The

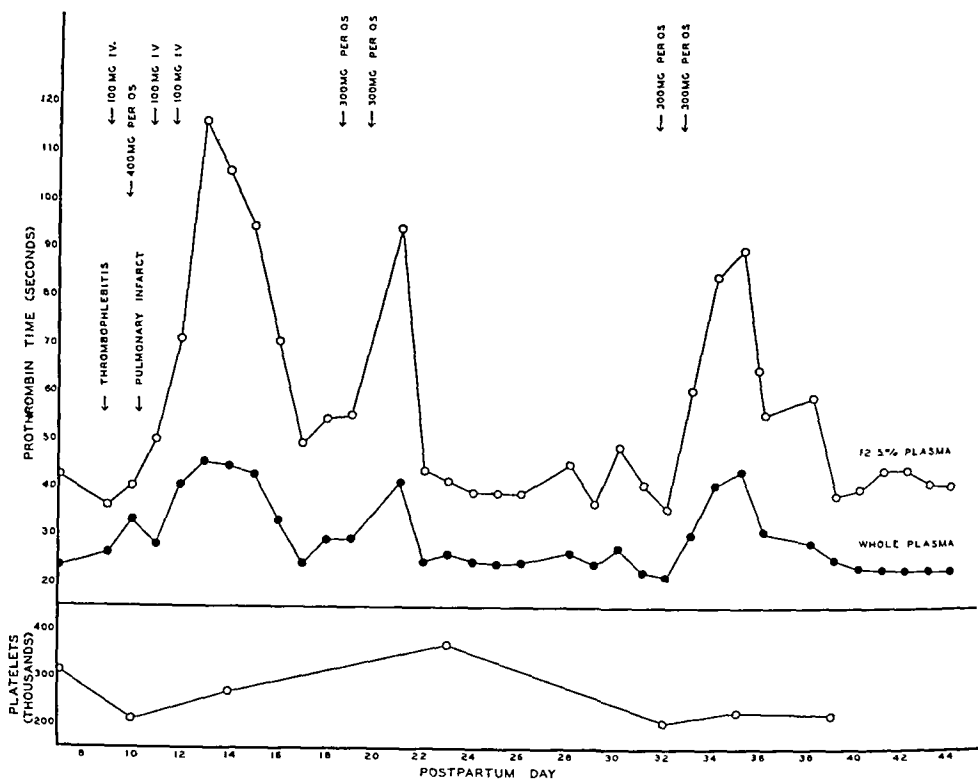


CHART 5. (Case 5) Platelet and prothrombin time of whole and 12.5 per cent plasma. (Thromboplastin-calcium chloride used.) The first 100 mg. intravenously was given on the same day as the 400 mg. by mouth. Note almost identical responses to 600-mg. dosages and greater response to initial 700-mg. dosages.

estimations on December 31, 1941, showed a difference between the time of whole and diluted (25 per cent) plasma of 3 seconds (normal 10.5 seconds). This difference was maintained at a level of between 20 to 33 seconds during the period of treatment (see Chart 4). No bleeding phenomena arose at any time. The cessation of emboli within one week after the anticoagulant therapy was started was striking. Evidences of heart failure became increasingly prominent and the patient died as a result of this and not of embolization. No necropsy was done. In the three months' interval of Dicumarol treatment there was discerned only one embolus (splenic infarct), whereas the organisms were present almost daily before the therapy was initiated.

The fever was not altered; therefore it was felt that the anticoagulant did not influence the sepsis, although the frequency of embolization became markedly reduced after the Dicumarol feedings.

On February 16 the total serum protein was 6.26 Gm. per 100 ml. The albumin was 3.68 Gm.; the globulin 1.35 Gm.; and fibrinogen 0.51 Gm. per cent. The A/G ratio was 2.7 to 1 and the total cholesterol 207 Gm. per 100 ml.

Case 5.—C. B., a 41-year-old white woman,

was delivered of a full-term normal baby on March 1, 1942. The pregnancy and delivery were not unusual. On the sixth postpartum day the temperature rose to 102.5 F. and remained irregularly elevated, reaching 103 F. and 104 F. on the eleventh and twelfth days after delivery, respectively, and at which time the right saphenous vein appeared to be acutely inflamed. Sulfathiazole therapy was then started. On the sixteenth postpartum day the temperature was still elevated and evidences of saphenous thrombophlebitis were still prominent. A prothrombin estimation by the above method¹³ was done and found to be normal. On the eighteenth day this was repeated and the difference between the prothrombin time of whole and diluted (12.5 per cent) plasma was reduced to 7 seconds. During the same day the patient was suddenly seized with severe sharp pain in the right axilla. Her respirations became shallow and very rapid and she coughed up bright red blood. Dullness, diminished breath and voice sounds over the right base, and limited descent of the right diaphragm were noted, and consequently it was believed that the patient had suffered an infarction of the lower lobe of the right lung. The roentgenogram supported this diagnosis. Dicumarol

was administered as follows: 400 mg. intravenously on each of the next two days (see Chart 5). A transfusion of 300 ml. fresh blood was given also. Sulfathiazole was continued. The temperature fluctuated irregularly between 100.5 F. and 102 F. until the ninth day after the transfusion, when it rose to 104 F. At the same time there appeared an erythematous and urticarial eruption and swelling and redness of several joints, especially both wrists. It was believed that these symptoms were indicative of serum (transfusion) reaction. Two daily doses of 300 mg. each of Dicumarol were given by mouth at this time. The fever subsided within three days to normal, and the skin eruptions and joint effusions also disappeared. The sulfathiazole was withdrawn. During this period there was little change in the physical signs in the right chest. On the seventeenth day after the infarction the temperature again gradually rose despite sulfathiazole administration. The fever continued, varying irregularly between 99 F. and 101 F. The prothrombin estimations were normal and two additional doses of 300 mg. of Dicumarol each were given (see Chart 5). The irregular fever did not recede; physical signs in the right chest suggested a fluid accumulation and on the twenty-sixth day after the infarction about 50 ml. of slightly cloudy amber fluid were removed. This was sterile on culture. A leukocyte count at the time was 4,000 per cmm., and the sulfathiazole was therefore discontinued. The temperature then gradually fell to normal for three days, after which it assumed a low-grade febrile curve varying between 99.8 F. and 101 F. Evidences of an interlobar effusion were detected.

The right saphenous thrombophlebitis had been marked, extending throughout the entire course. Following the first Dicumarol effect upon the blood there occurred a striking recession of this inflammatory reaction, and gradually all evidences of it completely disappeared, without residual interference with the return flow of blood in the limb.

It is apparent that the course of the infarction was unaltered by the anticoagulant therapy. However, emphasis is placed upon the fact that no further embolization was detected after Dicumarol was administered.

There was noted a depression of the serum proteins during the febrile period. In an effort to counteract this protein, hydrolysate (aminoids)¹³ were given perorally. Restoration of the total proteins to a normal level was observed within two weeks despite the continued fever. This has been our experience in other toxemias and is the subject of another study. The protein hydrolysate did not influence the anticoagulant effect.

The urine remained free of abnormal constituents during the entire period of observation.

Discussion

Whatever the causes initiating thromboses

may be, one thing is clear; namely, that if the blood is prevented from clotting, the thromboses cannot occur. The coagulation of blood is a continuous process made up of several consecutive reactions, each dependent upon the commencement of its predecessor for its own initiation. Consequently, by blocking any stage the culmination of all of these phenomena—that is, the formation of the clot—can be prevented. Hence, by its effect upon prothrombin, Dicumarol inhibits blood coagulation. In proper dosage it may be applied therapeutically. Its virtues are its ease in administration, its low price, the fact that it can be given over a long period of time *intermittently* without apparent ill effect, and that its effective dosage level can be reliably estimated and the hazard of bleeding avoided. This substance becomes measurably active only after a latent period of from twelve to twenty-four hours.

In 5 cases herein reported emphasis is placed upon the immediate cessation of embolization following adequate Dicumarol effect upon the prothrombin level (or activity). There is, of course, the possibility that this occurred independently of the therapy; however, the demonstration was so striking that it appears that the anticoagulant was responsible for the prevention of further embolization.

The prompt disappearance of the inflammatory reactions about the veins in Cases 1, 3, and 5 after the use of Dicumarol demonstrates that this therapy may also be of value in the treatment of acute thrombophlebitis.

The serial prothrombin estimations in Cases 2 and 5 revealed the reaction previously observed;^{13,14} namely, that about one or two days preceding the appearance of signs of pulmonary infarction the difference in prothrombin time between that of whole and diluted plasma becomes reduced to a point below that seen in normal persons.

It appears that Dicumarol acts on the prothrombin elaborating mechanism (liver?). It is therefore especially important that the serum proteins be maintained at a normal level. Consequently, it seems advisable to give a high protein diet during the period of toxemia while Dicumarol is being administered. Based upon the work of Beling and Lee¹⁵ we have been feeding protein hydrolysate in these cases.

Summary and Conclusions

The *in vivo* anticoagulant 3,3' methylenebis (4-hydroxycoumarin), commonly designated

as Dicumarol, may be safely administered to man.

A safe and therapeutically active dosage level is described by its respective effects upon whole and diluted plasma prothrombin time.

Five cases of embolization are reported. In 4, emboli ceased entirely, and in one they were strikingly diminished after Dicumarol therapy. In three instances in which acute thrombophlebitis was also present, it was observed that the signs of this inflammation subsided promptly after the anticoagulant effects became established.

No early or late toxic manifestations were observed.*

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*ACKNOWLEDGMENTS: The authors are indebted to the following physicians for their cooperation and for permission to report their respective cases:

Dr. H. C. Ingraham (New Rochelle Hospital) for Case 1; Dr. William Unobskey (New York City), for Case 2; Lebanon Hospital, Surgical Service of Dr. L. Sheinman, for Case 3; Dr. Thomas C. Jaleski (New Rochelle, New York), for Case 4; Lincoln Hospital, Service of Dr. Edward J. Davin, for Case 5.

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The oral Dicumarol was supplied by Dr. K. K. Chen of Eli Lilly & Co., Indianapolis, Indiana, and the intravenous preparation by the Abbott Laboratories, North Chicago, Illinois. Dr. Samuel Gordon (now a Major in the U.S. Army), of Endo Co., Richmond Hill, New York, supplied reagents used in the procedures. The protein hydrolysate (aminoids) was supplied by Arlington Chemical Co., Yonkers, New York.

Miss Frances Kaufman gave technical assistance.

WORSE FOE TO JAPS

Members of the WFA attending their first national officers training school got a lesson on how to fight stomach cancer and learned that this highly fatal disease attacks Japs two or three times as often as it does members of the white races.

Teacher of this class for officers of the Women's Field Army of the American Society for the Control of Cancer was Dr. George T. Pack, attending surgeon, Memorial Hospital, New York.

"Cancer of the stomach occurs two or three times as frequently in the Japanese as it does in the white races, a phenomenon not entirely understood, but highly approved of, at this time," he stated.

The stomach is the most common region of the body for fatal cancer to be located, he said.

The "flagrancy of high pressure salesmanship through the radio and the press by manufacturers of proprietary drugs in order to induce the public to treat its own indigestion" is one of four causes for the high mortality from stomach cancer listed by Dr. Pack.

The other three are the naturally high and increasing incidence of this disease; the progress of these cancers to the stage of inoperability before the majority of them are correctly diagnosed; and the difficulties attending surgical removal of cancer in this organ.

In two-thirds of the cases the patients are to blame for "immoderate and fatal delay" in getting a correct diagnosis and early, appropriate treatment. In the other third, Dr. Pack said, it is the fault of the physician first consulted.

On the encouraging side, Dr. Pack pointed out that many cancers of the stomach, formerly considered inoperable and hopeless, are now successfully removed. He reported that in the last two years 16 patients at Memorial Hospital have had the entire stomach removed because of cancer.

In this operation, the small intestine is stitched to the esophagus or gullet, and serves as a substitute stomach, enabling the patient to eat normal meals. In most patients, removal of part of the stomach is all that is necessary.—*Science News Letter*, October 3, 1942

Hush, little doctor, don't you cry,
You'll be a soldier by and by.—*Selected*

A bachelor is a man who has no children—to speak of.

THE ROLE OF THE LIVER IN SURGERY

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THE liver is the largest and most complex organ in the body, performing a larger number and a wider variety of functions than any other, and in many of these functions having an amazing margin of safety. Because of these many functions and the variable safety factor, there is no one test for liver function as a whole. Moreover, considerable uncertainty and lack of agreement prevails, not only among the clinicians but among the physiologists, as to the value of the tests that are commonly employed for the several known functions of this great organ.

In order to simplify the discussion of the relation of surgical procedures to liver physiology and liver pathology, let us consider the liver lobule, which is the lowest functional common denominator.

A branch of the hepatic artery delivers arterial blood to the tubes of liver cells in the lobule. The portal vein ends in capillary branches which pass between the columns of liver cells to converge in the central hepatic vein in the center of the lobule. The columns of liver cells separate the portal capillaries from the primary bile ducts or bile capillaries. Between these blood and bile capillaries the liver cells perform their various functions. Some of the products of these functions pass into the bile capillaries; others pass into the vascular channels, to be carried to the hepatic veins and into the cava. Disturbances in liver function may arise in the blood supply from the hepatic artery or from the portal vein, or from infection or obstruction in the bile ducts and, most important, in the liver cells that have so many functions. These liver cells may be involved in acute inflammatory and degenerative processes with acute and overwhelming symptoms, or they may be the site of chronic inflammatory and degenerative changes that result in slow connective tissue replacement and slow progressive or stationary symptoms, depending upon the remarkable powers of the liver cells to regenerate.

The functions of the liver that, when disturbed, may require surgery or that may become disturbed as a result of, or in the course

of, surgical therapy are: (1) bile formation, (2) formation of organic substances involved in blood coagulation, and (3) metabolism and storage of carbohydrates, proteins, and fats, and the production of antitoxic and protective substances.

1. Bile Formation

Bile is an alkaline fluid containing as its most important components bile pigments, bile salts, and cholesterol. The bile pigments are bilirubin and its oxidized product, biliverdin. Bilirubin is made not by the liver cells but in the circulating blood by the reticulo-endothelial system, including that in the liver, from the hemoglobin of broken-down red cells. This bilirubin is normally removed from the circulating blood plasma by the liver cells and passes into the bile capillaries with the bile. That is, bilirubin is excreted in the bile unless it is brought to the liver in excessive amounts, as in hemolytic jaundice, or unless the liver cells are so damaged as not to be able to pass it on into the bile capillaries. Before it passes through the liver cells the bilirubin is spoken of as "prehepatic" or R-E bilirubin.

In passing through the liver cells, bilirubin is changed from a colloid to a crystalloid by the removal of a protein molecule. In this form, which is known as posthepatic bilirubin, it is excreted by the kidney. In jaundice with posthepatic bilirubin in the urine the serum van den Bergh test is direct, whereas in acholuric jaundice with prehepatic bilirubin in the blood the van den Bergh reaction is indirect. Therefore, the urine examination for bilirubin yields the same information as the van den Bergh test, and because it is a much simpler test for differentiating between pre- and posthepatic bilirubin, it has displaced the van den Bergh test in many clinics as a means of differentiating between obstructive and non-obstructive or hepatogenous jaundice.

Phosphatase as an enzyme is produced in bone, carried into the blood, and excreted by the liver in the bile. Therefore it is so markedly increased in obstructive jaundice that it tends to run parallel with the rise in serum bilirubin and may reach the level of 30 Bodansky units. In nonobstructive jaundice, however, in spite of the rise in serum bilirubin the alkaline serum phosphatase does not increase

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

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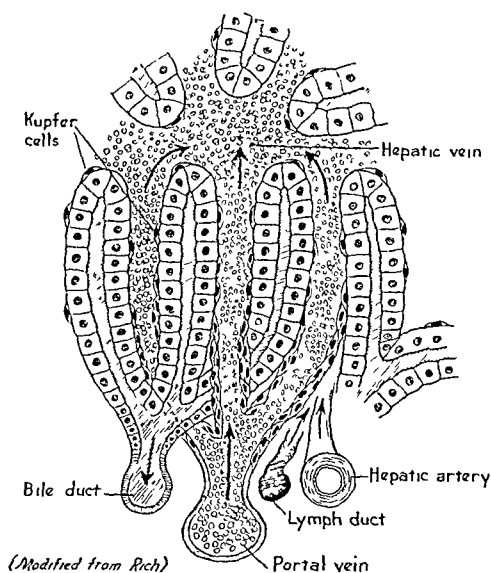


FIG. 1.

above the level of 10 Bodansky units. Other conditions in which high serum phosphatase readings are found, such as hyperparathyroidism, bone tumors, and carcinoma of the prostate, have to be ruled out in this test, but in such conditions jaundice is seldom present.

Bile Salts.—Taurocholic and glycocholic acids, and their sodium and potassium salts, are made in the liver, pass out with the bile, but are reabsorbed through the intestine and returned to the liver. The bile salts have important functions. They assist in the absorption of the products of fat cleavage, assist the digestive action of the pancreatic enzymes in the intestine, keep the cholesterol in the bile in solution, stimulate the liver to produce bile, and finally are essential for the absorption of vitamins D and K. It is evident, then, that a continuous flow of bile is essential and that failure of bile salt production in the liver or failure of bile salts in the bile to enter the intestinal tract gives rise to serious consequences.

In a liver that has been damaged by infection, cellular degeneration, or biliary obstruction, the bile acid content is decreased and the chloride content is increased. Therefore the study of bile from a common duct drain for the relief of common duct obstruction for its bile salts and chloride content is of value in determining liver damage or the return of normal liver function in bile production.

The importance of restoring the flow of

bile into the intestinal tract is evident because of the role of bile salts in fat digestion and vitamin D and K absorption. For this reason a permanent biliary fistula must by all means be avoided.

A most important but simple method for estimating the progress and determining the prognosis in a patient who has been operated upon for common duct obstruction with common duct drainage is the daily recording of the triad of (1) the degree of jaundice, as determined by vision, or, more accurately, by serum bilirubin determinations, (2) the color of the stools, and (3) the amount of bile drainage. It is obvious that with the decrease of jaundice, the resumption of brown color in the stools, and a steady decrease or cessation of bile drainage the patient is making a satisfactory recovery. On the other hand, decreasing jaundice, clay-colored stools, and a continued flow of 700 to 1,000 cc. of bile from the common duct drain mean only one condition—a common duct obstruction below the site of the drain. For accurate determination of the degree of jaundice and the increase or decrease of jaundice from day to day, the serum bilirubin determination is the most reliable test.

For the diagnosis of gallbladder disease and gallstones, an accurate history and careful physical examination are still the reliable methods they have always been. In doubtful cases we have found that the study of duodenal bile obtained by intubation gives as accurate data as cholecystography in the diagnosis of gallstones. The presence of cholesterol crystals and calcium bilirubinate particles in the centrifuged bile is positive evidence of gallstones. Failure of the dye to concentrate in the gallbladder in the cholecystogram may mean disturbed physiology, but it does not necessarily indicate a diseased gallbladder or adequate reason for a cholecystectomy.

2. Formation of the Organic Substances Involved in Blood Coagulation

It is now generally agreed that four substances are required for the clotting of blood: (1) prothrombin, (2) thromboplastin, (3) fibrinogen, and (4) calcium. The first three of these, organic in nature, are made in the liver. Calcium and fibrinogen are not materially altered in the bleeding tendency associated with jaundice or cholemia. Prothrombin is the substance that, when deficient, causes bleeding. Its formation in the liver is closely related to vitamin K. Depletion of

prothrombin is the result of lack of the fat-soluble vitamin K or is due to the failure of the vitamin to be carried across the intestinal mucosa owing to the absence of bile acids in the intestine. Thus there may be a prothrombin deficiency either as a result of severely damaged liver cells or of the failure of vitamin K to reach the liver because of lack of bile salts in the intestinal tract. Jaundice, as such, is not the cause of deficient prothrombin, for a patient who has a complete, permanent external biliary fistula and who is jaundice-free will show a marked hypoprothrombinemia and severe bleeding tendency.

The Quick test for the blood prothrombin level is a most important determination in every case of jaundice or suspected liver deficiency. Prothrombin cannot be stored in the liver but can be rapidly depleted, especially if vitamin K fails to reach the liver. Prothrombin deficiency should be treated by the administration of vitamin K and of bile salts for several days before operation and several days after operation until normal bile flow is established in the intestine. If the prothrombin level in the blood is below 15 per cent, an immediate transfusion of fresh whole blood is indicated. The more recent use of the synthetic naphthoquinones, with properties similar to vitamin K, given by vein or intramuscularly, effects equally good and more immediate elevation of prothrombin levels. Dr. Andrus and Dr. Lord of the New York Hospital have used 2-methyl-1,4-naphthoquinone intramuscularly as an effective means of raising the prothrombin level when oral administration of vitamin K and bile salts was difficult.

3. Metabolism and Storage of Carbohydrates, Proteins, and Fats; Production of Antitoxic and Protective Substances

The liver cells have a major function in the metabolism and storage of carbohydrates, proteins, and fats, and in the production of antitoxic and protective substances against kidney and central nervous system damage. Adequate protein and carbohydrate (glycogen) storage is essential in the prevention of liver cell damage, whereas an excess of lipid content in the cells favors liver damage. For these reasons it is essential, as Ravdin and his associates have so ably demonstrated, that patients facing major surgical procedures, especially those involving the biliary system and the gastrointestinal tract, be given a high protein, high carbohydrate diet before and after operation—namely, a diet composed of

approximately 70 per cent carbohydrate, 25 per cent protein, and not more than 5 per cent fat, and containing from 3,000 to 3,500 calories. Such a diet may require both the oral and intravenous routes, and, in some cases, feeding by the intestinal tube. Such a diet will prevent liver damage by protein loss and will prevent general body weight loss.

Certain tests are now fairly well demonstrated as having a bearing upon the healthy state or the damaged condition of the liver cells. The sugar (galactose) tolerance tests determine the ability of the liver to metabolize carbohydrates. The dye excretion tests—bromosulfalein and rose benzol—are an indication of the ability of the liver cells to excrete foreign dye substances through the bile, and, in the absence of jaundice, are practical tests for liver cell damage. The determination of the bile salt and sodium chloride content of the bile, as obtained by duodenal tube or from a common duct drain, is a valuable and accurate measure of liver cell bile production and in determining the progress of a postoperative biliary case.

The Quick hippuric acid test of liver function is based upon the conjugation of glycine and benzoic acid, in which process the latter is detoxified. This conjugation results in the formation of hippuric acid by the kidney, but the required glycine is formed only in the liver. Liver damage impairs glycine synthesis with benzoic acid and reduces the output of hippuric acid. This hippuric acid test is considered by many to be the most valuable for determining liver cell damage and for estimating surgical risk and determining prognosis. Impaired kidney function compromises the usefulness of the test.

The Hanger cephalin flocculation test,¹ which has recently attracted wide attention, is, in our experience, one of the most useful tests for determining acute liver damage such as is seen in acute hepatitis and acute and sub-acute yellow atrophy, and in differentiating the hepatogenous jaundice seen in acute hepatitis from obstructive jaundice. This test indicates irritation of the cells of the liver by disease, and is not necessarily dependent upon impairment of any one liver function. Positive reactions are due to some subtle changes in the globulin fraction of the serum that is present in many types of inflammation and acute degeneration in the liver cells. The test consists of adding a colloidal suspension of cephalin and cholesterol to the patient's serum which has been diluted 1 to 21 with normal salt solution. After twenty-four to

forty-eight hours the degree of flocculation and precipitation of the lipids is noted in the test tube. The serums of normal individuals or of patients with diseases not accompanied by active inflammation or degeneration cause no flocculation. Cases of acute hepatitis or of active cirrhosis usually give a strong (4 plus or 3 plus) reaction, which becomes negative as the hepatic disorder subsides. For this reason this test is a valuable aid in determining the course and the prognosis in the disease.

In the medical and surgical clinics of the Presbyterian Hospital this test, in combination with the alkaline serum phosphatase test, has proved of great value in differentiating hepatogenous from obstructive jaundice. I quote from Dr. Gutman's and Dr. Hanger's recent article in the *Medical Clinics of North America*:

"Thus far, both tests have not been found to be in error in any one case either of 'catarrhal' jaundice or of jaundice due to demonstrated common duct obstruction. Our experience indicates that, in general, (1) the diagnosis of common duct obstruction is highly improbable if the alkaline serum phosphatase level is *below* 10 Bodansky units and the cephalin flocculation test is strongly *positive*; (2) the decision to explore icteric patients, based on clinical grounds, is supported by finding a serum phosphatase level *over* 10 Bodansky units associated with a *negative* cephalin flocculation reaction."²

For further discussion of these tests, those interested are referred to this recent paper.

Rosenberg and Soskin³ have more recently reported their results in using the cephalin flocculation test. In this work 100 patients with unequivocal clinical evidence of mild or moderate degrees of liver damage were studied. In these patients the results with this test were compared with various commonly employed criteria of liver function, including determinations of icterus index, bromosulfalein retention, hippuric acid excretion, serum cholesterol partition, serum albumin and serum globulin fractions, and prothrombin time. It was found that the cephalin flocculation test gave by far the best correlation with clinical observations of any of the tests or criteria of liver function and was positive in 98 per cent of the 100 cases. In 10 patients tests were positive when all other tests and combination of tests were negative.

This combination, therefore, of the cephalin flocculation test with the serum phosphatase test for differentiating hepatogenous from obstructive jaundice is certainly the most valuable for the surgeon in determining which jaundiced cases should be operated upon. For in many cases this decision is not easy to make or cannot be made definitely without such laboratory confirmation.

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MARY PUTNAM JACOBI FELLOWSHIP

The Women's Medical Association of New York offers a Mary Putnam Jacobi Fellowship for medical research, of one thousand dollars (\$1,000), available October 1, 1943. It is open to any woman doctor, either American or foreign, who is a graduate of a reputable medical school.

Applications for this fellowship must be filed with the secretary of the committee by March 1, 1943, and must be accompanied by statements by persons other than the candidate as to (1) health, (2) educational qualifications, and (3) previous work. The applicant herself should state the problem she proposes to investigate and send her photograph. As it is not practicable for the secretary to write for letters about candidates, applicants should send with their applications sufficient data to enable the committee to judge of their respective merits.

The recipient of the fellowship will be expected

to give full time to the study of her problem and to make a report for publication at the completion of her research.

Application blanks may be obtained from the secretary of the committee.

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*Chairman of the Mary Putnam
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Therapeutics

CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the February 1 issue and will concern "Management of Peptic Ulcer: II. Surgical Aspects."

The Management of Peptic Ulcer: I. Medical Aspects

DR. McKEEN CATTELL: This is the first of two conferences on the subject of the management of peptic ulcer. Today we will consider the medical aspects of treatment.

Dr. Summerson will begin with a discussion of the properties of the antacids.

DR. WILLIAM H. SUMMERSON: When the biochemist considers the various antacids which clinicians have been using for the relief of gastric hyperacidity, he finds that they are of two general types.

One type, which we may call the *nonbuffer antacids*, is represented by such substances as the carbonates, oxides, and hydroxides. These compounds react with equivalent amounts of acid to form an essentially neutral solution, the reaction involving the formation of neutral salts and either water or readily volatile carbon dioxide. The other type, the *buffer antacids*, does not produce a neutral solution but lowers gastric acidity by replacing the relatively strong hydrochloric acid of the gastric juice with much weaker acids. The buffer antacids include such substances as the citrates, acetates, phosphates, and silicates. These compounds differ decidedly from the nonbuffer antacids in the manner in which they combat gastric acidity.

This difference between the buffer and nonbuffer antacids is illustrated by a comparison of the neutralizing value of the various antacids. The neutralizing value is defined as the dose of the substance, in grams, that corresponds to effective neutralization of one liter of tenth-normal hydrochloric acid. This amount of acid was selected because under these conditions the neutralizing value of the antacid approximates the usual therapeutic dose. The neutralizing values for some of the more commonly used nonbuffer antacids are given in Table 1.

The compounds listed in Table 1 all produce

TABLE 1.—NEUTRALIZING VALUE OF CERTAIN NON-BUFFER ANTACIDS

Compound	Grams Needed to Neutralize 1 Liter of N/10 HCl
Magnesium oxide U.S.P.	2.0
Magnesium carbonate U.S.P.	4.9
Calcium carbonate U.S.P.	5.0
Sodium carbonate anhydrous	5.3
Sodium bicarbonate U.S.P.	8.4
Bismuth subcarbonate U.S.P.	26.0

a truly neutral solution when administered in amounts exactly equivalent to the amount of acid that is present. However, even a slight excess of the compound over the amount of acid will produce an alkaline reaction in the stomach; this effect is least with calcium and magnesium carbonates and greatest with sodium carbonate.

In the case of the buffer antacids, the situation is quite different. Owing to the nature of buffer action, it is almost impossible from a practical point of view to say how much of a given buffer substance is necessary to completely neutralize a certain amount of acid. We can, however, consider the effectiveness of buffers in lowering the acidity of a solution from pH 1 (corresponding to N/10 HCl) to about pH 2 or 3 or 4, and under these conditions we obtain the data in Table 2.

TABLE 2.—EFFECTIVENESS OF CERTAIN BUFFER ANTACIDS IN LOWERING GASTRIC ACIDITY

Compound	Grams Required to Bring 1 Liter of N/10 HCl (pH 1) to Indicated pH			
	Grams	pH	Grams	pH
Trig magnesium phosphate anhydrous	4	2	40	5
Tricalcium phosphate anhydrous	5	2	50	5
Magnesium trisilicate anhydrous	—	—	6.5	5
Sodium citrate U.S.P.	10	2	100	5
Sodium acetate U.S.P.	14	3	42	5
Mucin	65	3	—	—

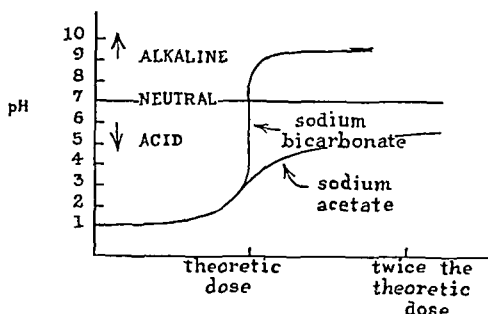


FIG. 1. Influence of typical nonbuffer and buffer antacids on the pH of a solution containing N/10 HCl.

Thus for a typical buffer antacid such as sodium acetate, the addition of 14 Gm. to a liter of N/10 HCl changes the pH from 1 to 3, simply by replacing the HCl by an equivalent amount of acetic acid; and a dose three times as large, or 42 Gm., is required to lower the acidity to a point corresponding to pH 5. It is almost impossible to administer enough of this antacid to render the solution actually alkaline. Essentially the same thing is true of the other buffer antacids listed in Table 2.

The fundamental difference between buffer and nonbuffer antacids, which may be seen by comparing Tables 1 and 2, is also illustrated by Fig. 1, which shows the change in pH of a solution of N/10 HCl on the addition of increasing amounts of a nonbuffer antacid, such as sodium bicarbonate, and a buffer antacid, such as sodium acetate.

From Fig. 1 it can be seen that no significant neutralizing power is exerted by either the buffer or the nonbuffer antacid until almost the full theoretic dose is added to the solution. That is, an amount of antacid insufficient to react with all of the acid present is of little or no practical value in lowering gastric acidity. When an excess of antacid is administered, the difference between buffer and nonbuffer antacids becomes evident. In the case of nonbuffer antacids such as sodium bicarbonate and the others listed in Table 1, a slight excess over the amount of acid that is present causes a sharp rise in pH to above the neutral point and into the alkaline range. As long as the excess antacid remains in the stomach, the stomach contents will remain alkaline, and will again become acid only after sufficient HCl has been secreted to react with the amount of antacid that is present.

The equivalent dose of the buffer antacid sodium acetate does not produce a neutral or alkaline reaction in the stomach contents, but

simply brings about the replacement of the hydrochloric acid by the much weaker acetic acid, changing the pH from 1 to about 3. The further addition of even a great excess of the antacid results in the gradual lowering of acidity shown by the gradual rise in pH, in Fig. 1. It is clear that it would require a relatively enormous dose to bring about even a weak degree of alkalinity in the stomach contents.

Thus a buffer antacid does not render the stomach contents alkaline when an overdose is given, as do the nonbuffer antacids, but merely alters the pH of the stomach contents from what corresponds to a strongly acid solution to what corresponds to a weakly acid solution. If now to this buffered weakly acid solution more HCl is added, as long as an excess of the buffer antacid is present the gastric acidity will remain low (pH 3 or higher); but if sufficient HCl is added to exceed the amount of buffer antacid present, the gastric contents will once more become strongly acid (pH 2 or lower).

It has been pointed out that no antacid is of any value unless an excess is administered. From this viewpoint, the chief difference between the buffer and nonbuffer antacids is in the pH of the gastric contents after the dose. For the nonbuffer antacids of Table 1, the pH will always correspond to an alkaline solution, of greater or less alkalinity, depending upon the particular antacid that is used. For the buffer antacids the pH will be that of a weakly acid solution. The choice between the two types of antacids thus depends upon the degree of acidity or alkalinity desired in the stomach after administration.

Now let us consider for a moment some of the chemical and physical characteristics of the individual antacids, since they differ considerably in their solubility, degree of acidity or alkalinity in solution, and rate of reaction with acid. The soluble antacids include sodium carbonate, bicarbonate, citrate, and acetate, and also mucin. The others listed are insoluble but, with the exception of magnesium trisilicate, they form soluble compounds with acid. The effectiveness of an antacid will depend to a great extent upon its rate of contact with acid. It follows that a soluble antacid will react much more rapidly than an insoluble compound, but, on the other hand, an insoluble antacid may be removed from the stomach less rapidly than one that is soluble, and the latter fact appears to be of considerable significance. It is probably for this reason, for instance, that calcium carbonate is found, in clinical experience, to be one of the

most effective antacids. Even though calcium carbonate is quite insoluble in water, it reacts rapidly with acid, and the excess tends to remain in the stomach, neutralizing additional acid as it is secreted.

Magnesium trisilicate is somewhat different. It is not only insoluble but also forms the insoluble silicic acid on reacting with mineral acid. For this reason the rate of reaction with acid is extremely slow. In the laboratory, for instance, hours of stirring are required, even at body temperature, for complete reaction between magnesium trisilicate and HCl. Thus, despite an apparent superiority over other buffer antacids in requiring a smaller dose for a given pH change, magnesium trisilicate would be regarded as one of the least desirable antacids if rapid reduction of acidity were necessary.

Now just a word about an antacid that is coming into common use and that is not included in either of the tables given here. I refer to aluminum hydroxide in suspension. Different preparations of aluminum hydroxide differ markedly in their ability to react with acid, some forms of the compound not reacting at all; but a suitable preparation may be quite satisfactory as an antacid. Such preparations have the advantages of being insoluble, of reacting fairly rapidly with acid, and of not alkalinizing the gastric contents when given in excess, thus combining the virtues of both buffer and nonbuffer antacids. One such preparation obtained on the open market was found to "neutralize" ten times its volume of N/10 HCl, the pH going from an initial value of 1 to about 4 and staying at this value in the presence of excess antacid.

DR. CATTELL: Next, Dr. Travell will discuss some pharmacologic aspects of the drugs used in peptic ulcer.

DR. JANET TRAVELL: In reviewing the agents used in the treatment of peptic ulcer, one is impressed both with their number and with the variety of objectives which their use has in view.

Briefly, the therapeutic agents may be grouped in general as follows: First, there are the substances which neutralize acid. This group includes the antacid powders, gastric mucin, and proteins such as milk. A second category includes those agents, such as astringents and demulcents, that also act locally and are said to protect the surface of the ulcer. The value of such substances is not clearly established. Thirdly, there are the "antispasmodics," which reduce gastrointestinal motility. Here we place atropine, with a ques-

tion mark. In this category are certain drugs that have chiefly a direct action on muscle, such as syntropan, trasentin, the nitrites, and papaverine. There may be a fourth group which includes "acid inhibitors"—that is, substances that directly reduce the rate of secretion of gastric juice. Atropine may belong in this group, as well as oil of peppermint and the other volatile oils. It has also been postulated that there is a specific chemical regulator of acid secretion, and that peptic ulcer is the result of a deficiency of a hormone that normally inhibits the formation of acid. In a fifth group are agents which influence psychic factors; that is, sedatives such as the barbiturates. Finally, there is a miscellaneous group comprising such agents as histaminase, posterior pituitary solution, the sex hormones, and the vitamins.

In reviewing the figures for the neutralizing value of the antacids which Dr. Summerson has given you, it is well to remember that the teaspoonful rather than the gram is the measure of dosage with which the patient is familiar. The variation in bulk of these powders is considerable. For instance, the weight of a teaspoonful of sodium bicarbonate is 5.5 Gm., and therefore 1½ teaspoonfuls are required to neutralize a liter of tenth-normal hydrochloric acid. The weight of a teaspoonful of calcium carbonate is 2.5 Gm., and therefore two teaspoonfuls of this substance are required to neutralize a liter of tenth-normal hydrochloric acid. A teaspoonful of bismuth subcarbonate weighs 3.5 Gm., and since its neutralizing capacity is very low, the dose equivalent to this amount of acid would be 7½ teaspoonfuls. There are two kinds of magnesium oxide, light and heavy. The heavy is about four times as heavy as the light; the weight of a teaspoonful of the heavy powder is 2.0 Gm., and that of the light is only 0.5 Gm., so that the relative amounts necessary to neutralize a liter of tenth-normal hydrochloric acid are 1 teaspoonful of the former and 4 teaspoonfuls of the latter.

Dr. Summerson has pointed out that the chief difference between the buffers and the nonbuffers is the ultimate pH level produced in the stomach when an excess of the antacid is added. That brings us to the first problem in antacid therapy, which is: What pH represents effective control of acidity? The answer to this question depends on what the objective of antacid therapy is thought to be. If the lowering of the pH of the gastric contents has the purpose of reducing the irritant or corrosive action of hydrochloric acid, the maintenance of

a pH of about 3 or higher would represent adequate neutralization, since practically all of the free hydrochloric acid is neutralized at this pH. If the objective of therapy is the inhibition of peptic activity, it is said that the pH level must be raised considerably higher, to about 5. That is the figure that is usually given. It is known that peptic activity proceeds at its maximum rate at a pH of 1.8 to 2.4; at a pH of 4 it is reduced to 10 per cent, and at a pH of 4.4, it falls off to about 5 per cent. At a pH of 5 the activity of this enzyme almost entirely ceases, and this has been termed by Hollander the "proteolytic neutralization point." However, there are recent clinical experiments using intragastric pH determinations which show that for all practical purposes the proteolytic digestion of egg-white within the stomach ceases at a pH of about 3.5.

A second problem in the use of antacids is this: Does the degree of neutralization obtained by the various antacids within the stomach parallel their antacid potency as determined in the test tube? Can we use the latter figures as a guide to what we may expect clinically from antacid therapy? The evidence on this point seems to indicate that there is not necessarily any such parallelism. For instance, Kirsner and Palmer, in a large number of experiments on ulcer patients, determined the average reduction of acidity in aspirated samples of gastric juice, and found that 2 Gm. of calcium carbonate, which theoretically neutralizes only 250 cc. of 0.5 per cent hydrochloric acid, was more effective than doses of 16 and 30 cc. of aluminum hydroxide, which theoretically neutralize 544 and 1,207 cc., respectively. This difference in intragastric neutralizing potency may be due to the slowness of the reaction in the case of the aluminum hydroxide, which Dr. Summerston has mentioned, with consequent loss of the material from the stomach before it has had time to react. The effectiveness of a substance in neutralizing gastric acidity depends not only on the chemical neutralization equivalent but obviously on other factors, such as the rate of chemical reaction, solubility, and diffusibility, the rate of passage of the antacid from the stomach, and possibly on the degree of rebound acidity which it induces.

In general the attributes of the ideal antacid as described by Loevenhart and Crandall still hold true. The first essential is high neutralizing potency. The antacid should also be nearly neutral itself and should neutralize acid without the liberation of carbon dioxide. It should be poorly absorbed, but,

if absorbable, it should be nontoxic. Especially, it should not alter the acid-base equilibrium of the body. It seems to me that although it has certain disadvantages, the antacid that seems best to fit the description of an ideal antacid is calcium carbonate.

The fundamental difficulty in correlating in vitro and in vivo neutralizing potencies lies in the dissimilarity of the conditions which exist in the test tube and in the stomach. In the test tube, the alkali and acid are thoroughly mixed. In the stomach, layering of the contents takes place, so that it has been said that the stomach behaves "not like a churn but like a hopper." In patients receiving alkalis at stated intervals, Eyerly and Breuhhaus have compared the pH values obtained on aspirated samples with those obtained by means of a glass electrode placed in the antrum of the stomach, and they find wide discrepancies. The pH of the aspirated samples shows wider fluctuations and is usually higher than the pH within the antrum.

When one comes to the problem of evaluating antacid therapy, even greater difficulties are encountered. Are control of gastric acidity and control of symptoms synonymous? That is a question I should like to leave for discussion.

DR. CATTELL: Dr. Weintraub will now discuss some practical aspects of the management of the patient with peptic ulcer.

DR. SYDNEY WEINTRAUB: Peptic ulcer should be regarded as a local manifestation of a general constitutional disturbance in which the psychic factors play just as important a role as the somatic factors. In other words, we must treat not only the ulcer but the patient as a whole. These patients are usually of the vagotonic type, nervous, high-strung, and worrisome. It is just as important to go into their personal problems as to prescribe diets and medicine. Secondly, these people should be examined for the presence of focal infection. Although it has not been proved that focal infection is the cause of ulcer, nevertheless infected teeth, tonsils, or sinuses, or a chronically inflamed appendix or gallbladder may either prevent the healing of an ulcer or be responsible for the recurrence of the lesion.

There are two main types of treatment for ulcer. One is the bed-rest treatment, and the other is the ambulatory plan. Theoretically, every ulcer should receive the bed-rest treatment, but this is not always feasible when one is dealing with clinic patients. Definite indications for bed-rest treatment are the presence of an ulcer large in size, or evidence of bleeding,

obstruction, or threatened perforation. This last complication should be suspected when the pain becomes more severe and radiates through to the back and fails to be relieved by food and alkalis.

The bed-rest treatment follows more or less the regimen devised by Sippy. It consists essentially of hourly feedings of 90 cc. of equal parts of milk and cream from 7 A.M. to 7 P.M. Sippy also prescribed the following powders:

- I. Magnesium oxide
Sodium bicarbonate aa 0.6 Gm.
- II. Bismuth subcarbonate 0.6 Gm.
Sodium bicarbonate 1.2 to 1.8 Gm.

These powders were to be taken alternately between feedings and then continued hourly until 10 P.M. It will be noted that the patient received approximately 15 Gm. of sodium bicarbonate in fifteen hours. As a result of this, many patients developed alkalosis. This condition should be suspected when the patient develops a distaste for food, particularly for milk. He also may say that the milk tastes sour. Other symptoms of alkalosis are headache, weakness, nervous irritability, dizziness, nausea, vomiting, and aching pains in the muscles and joints. In the severe cases, prostration, mental apathy, tetany, and convulsions may develop. If alkalosis is suspected blood chlorides and carbon dioxide combining power should be determined.

We prefer to use Eusterman's modification of the Sippy powders:

- I. Calcium carbonate
Sodium bicarbonate aa 0.6 Gm.
- II. Calcium carbonate
Heavy magnesium oxide aa 0.6 Gm.

It should be noted that powder No. I contains the same amount of sodium bicarbonate as the Sippy powder No. I, and must therefore be used with the same precautions in order to avoid alkalosis. If the magnesium oxide in powder No. II proves too laxative, an equal amount of bismuth subcarbonate may be substituted.

While alkalinization is an essential part of the treatment of ulcer, it should not be continued over too long a period after the ulcer is healed. Most simple ulcers will heal in one to four weeks. Healing is indicated by the fact that the patient is clinically free of symptoms and by radiographic evidence. We must admit that we have seen very few cases of alkalosis in our clinic, and they have been very mild.

The other drugs most commonly used in the treatment of ulcer are belladonna and phenobarbital. These may be combined either in a capsule containing 15 mg. ($\frac{1}{4}$ grain) of extract of belladonna and 15 mg. ($\frac{1}{4}$ grain) of phenobarbital, or in a mixture consisting of 0.5 cc. (8 minims) of tincture of belladonna in 5 cc. of elixir of phenobarbital. This combination has both a sedative and an antispasmodic action. Even though the dose of belladonna is small, it has been observed that most patients show that the drug is effective. Many will develop symptoms of atropine saturation in a week or two.

In the ambulatory treatment, the patient receives three meals consisting of milk, cream, eggs, thoroughly cooked cereals, puréed vegetables, stewed fruits with cream, and minced chicken, with milk, malted milk, buttermilk, or cocoa given between meals and at bedtime. In choosing an alkali for the ambulatory patient, one must consider not only its effectiveness but also its palatability and cost. We use a mixture containing equal parts by weight of calcium carbonate and light magnesium oxide flavored with a little oil of peppermint. A heaping teaspoonful is given one hour after meals, at the time when the acid tide is apt to be at its height. This dose contains approximately 0.8 Gm. of calcium carbonate and 0.8 Gm. of magnesium oxide. Theoretically, calcium carbonate is probably the best single antacid, but it should be noted that many of the patients who receive it are constipated, and the addition of a magnesium salt to the calcium carbonate tends to counteract this condition and provides the most useful mixture. The night pain is controlled by the ingestion of milk or antacids.

Before leaving the subject of alkalis, one should mention aluminum hydroxide gel. We have not been able to discern that it possesses any advantages over the antacids mentioned above. On the other hand, many patients have found it to be very constipating, and some have complained of nausea.

So much for the treatment of the acute ulcer symptoms. The intake of vitamins during the first three or four weeks of treatment does not concern us, but subsequently this must be given consideration. Orange juice or grapefruit juice is allowed as dessert. The taking of fruit juices before breakfast very often produces symptoms of hyperacidity. In addition, sufficient doses of vitamin B complex are given. We also emphasize the need for complete abstinence from tobacco.

I will mention briefly some other methods of

a pH of about 3 or higher would represent adequate neutralization, since practically all of the free hydrochloric acid is neutralized at this pH. If the objective of therapy is the inhibition of peptic activity, it is said that the pH level must be raised considerably higher, to about 5. That is the figure that is usually given. It is known that peptic activity proceeds at its maximum rate at a pH of 1.8 to 2.4; at a pH of 4 it is reduced to 10 per cent, and at a pH of 4.4, it falls off to about 5 per cent. At a pH of 5 the activity of this enzyme almost entirely ceases, and this has been termed by Hollander the "proteolytic neutralization point." However, there are recent clinical experiments using intragastric pH determinations which show that for all practical purposes the proteolytic digestion of egg-white within the stomach ceases at a pH of about 3.5.

A second problem in the use of antacids is this: Does the degree of neutralization obtained by the various antacids within the stomach parallel their antacid potency as determined in the test tube? Can we use the latter figures as a guide to what we may expect clinically from antacid therapy? The evidence on this point seems to indicate that there is not necessarily any such parallelism. For instance, Kirsner and Palmer, in a large number of experiments on ulcer patients, determined the average reduction of acidity in aspirated samples of gastric juice, and found that 2 Gm. of calcium carbonate, which theoretically neutralizes only 250 cc. of 0.5 per cent hydrochloric acid, was more effective than doses of 16 and 30 cc. of aluminum hydroxide, which theoretically neutralize 544 and 1,207 cc., respectively. This difference in intragastric neutralizing potency may be due to the slowness of the reaction in the case of the aluminum hydroxide, which Dr. Summerston has mentioned, with consequent loss of the material from the stomach before it has had time to react. The effectiveness of a substance in neutralizing gastric acidity depends not only on the chemical neutralization equivalent but obviously on other factors, such as the rate of chemical reaction, solubility, and diffusibility, the rate of passage of the antacid from the stomach, and possibly on the degree of rebound acidity which it induces.

In general the attributes of the ideal antacid as described by Loevenhart and Crandall still hold true. The first essential is high neutralizing potency. The antacid should also be nearly neutral itself and should neutralize acid without the liberation of carbon dioxide. It should be poorly absorbed, but,

if absorbable, it should be nontoxic. Especially, it should not alter the acid-base equilibrium of the body. It seems to me that although it has certain disadvantages, the antacid that seems best to fit the description of an ideal antacid is calcium carbonate.

The fundamental difficulty in correlating *in vitro* and *in vivo* neutralizing potencies lies in the dissimilarity of the conditions which exist in the test tube and in the stomach. In the test tube, the alkali and acid are thoroughly mixed. In the stomach, layering of the contents takes place, so that it has been said that the stomach behaves "not like a churn but like a hopper." In patients receiving alkalis at stated intervals, Eyerly and Breuhaus have compared the pH values obtained on aspirated samples with those obtained by means of a glass electrode placed in the antrum of the stomach, and they find wide discrepancies. The pH of the aspirated samples shows wider fluctuations and is usually higher than the pH within the antrum.

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must help patients to readjust if we expect them to do well.

DR. WHEELER: Suppose that a patient with severe ulcer symptoms has been put to bed, has received the Sippy regimen, barbiturates, belladonna, and alkalis, and after a period of time becomes free of symptoms, how soon, Dr. Weintraub, do you start giving other foods besides milk and cream?

DR. WEINTRAUB: Usually the diet of milk and cream is continued for three or four days, and then the patient is allowed supplementary feedings. These are given three times a day and at the start consist of 6 ounces of creamed puréed vegetable soup, junket, custard and puddings, puréed vegetables, etc. Then after eight or ten days the supplementary feedings are increased to five or six a day, and that routine is usually kept up for about two months. Then gradually the meat of chicken, fish, steaks, and chops and other foods are added, until finally the patient is receiving a full diet, with the exception, of course, of highly seasoned foods.

The question also arises as to how long one should continue the use of alkaline powders. There are some physicians who continue them after each meal for months, or even a year, but I usually discontinue them after three months if there are no symptoms, and advise the patient to keep a supply of the powders on hand and to take a dose if he has any indigestion or any symptoms of hyperacidity.

DR. CATTELL: Does that accord with your practice, Dr. Heffner?

DR. HEFFNER: Perhaps some of us go a little farther than that, particularly in duodenal ulcer. We usually insist that the patient remain on fairly strict management for six to twelve months, regardless of how soon the symptoms disappear after the regimen is begun. Tobacco and alcohol are interdicted during this period. In many cases the judicious use of sedatives is just as important as the use of alkalis. It is well to inform all patients with duodenal ulcer at the outset of treatment that a bland, nonirritating type of diet should be followed permanently.

DR. CATTELL: One topic which has not received attention today is the place of atropine in ulcer therapy. We should like to hear from Dr. Holland and from Dr. Gold on that subject.

DR. ARTHUR L. HOLLAND: Atropine and belladonna stand out as the principal agents we employ as antispasmodics. The pharmacologists do not always agree with us here. They say that the ordinary amounts that can

be given safely do not produce any effect, or rather not enough effect, to be worth while. I agree that spasm is not affected very much by belladonna or atropine, but these agents seem to establish a better balance between the vagus and the sympathetics, which has something to do with quieting and regulating the peristalsis of the gastrointestinal canal. Again we must remember that since many of the data have been gathered through animal experimentation, and since the various species of experimental animals are known to differ in their reactions to drugs, the results may not apply clinically.

But in atropine and belladonna we have friends, despite the pharmacologists. I have given these drugs routinely for a great many years. It is curious how often, when we have discontinued atropine for one reason or another, the patient has called up and asked if we would not please go on with "that laxative pill"—evidently missing the effect of the atropine. But, as I have said, I have not seen atropine afford any definite relief from spasm of the true sphincters, as of the pylorus or the cardia. I have never been able to observe fluoroscopically that atropine relieved such spasm. On the other hand, when one is unable to fill out the duodenal bulb because of severe pylorospasm, a whiff of amyl nitrite will temporarily relieve the spasm. A very simple preparation—spirit of peppermint—will also sometimes secure relaxation.

DR. HARRY GOLD: First let me mention a practical point. Atropine is often given in the form of tincture of belladonna in doses of the order of 5 minims, two or three times a day. Sometimes this is prescribed as "5 drops." It is well to remember that in the case of alcoholic solutions 5 drops and 5 minims are not the same: there are about $2\frac{1}{2}$ drops in 1 minim of the tincture. I wonder what the practice is in this hospital?

DR. WHEELER: Many medicine droppers such as those we have on our wards, deliver as many as 50 drops of tincture of belladonna to the cubic centimeter. On this basis an initial dose of 10 drops three times a day, such as is often prescribed, hardly seems sufficient. The routine procedure on the Medical Service is to measure the dose in a 1-cc. graduate.

We usually prescribe tincture of belladonna in a dose of 0.3 cc. three times a day, and increase the dose by 0.1 cc. three times a day until dryness of the mouth or blurring of near vision appears, at which point each of the three daily doses is reduced by 0.1 or 0.2 cc. This means that we start with a dose of about 0.1 mg. of

treatment that are in vogue: first, parenteral injections of lipoproteins, histidine, and non-specific proteins. In our experience these substances have not proved beneficial. Secondly, there is gastric mucin. We do not often use this because its taste and odor render it unpalatable and very few patients can tolerate it. The average dose is 60 cc. taken in chocolate malted milk three times a day. Occasionally it will relieve symptoms when the ordinary alkaline therapy has failed. One should be very cautious, however, in evaluating the results of a particular type of therapy, since statistical analyses have shown that no matter what type of treatment is employed, 80 per cent of the patients are still symptom-free at the end of one year, 60 per cent after two years, 50 per cent after three years, 30 per cent after four years, and 20 per cent after five years. Emery and Monroe, at the Peter Bent Brigham Hospital, have shown, furthermore, that essentially the same results are obtained when no treatment at all is given.

The question frequently arises whether the medical treatment for ulcer is designed mainly for the relief of symptoms or whether it effects a cure. One may state that no form of treatment, either medical or surgical, can guarantee a permanent cure. However, as a rule the symptoms are an excellent indication of the status of the ulcer. When the pain disappears, it can be assumed that the ulcer is healing. The best evidence of healing, however, can be obtained by a radiographic examination and includes the disappearance of the niche, the absence of spasm, and diminution of peristalsis. The control of hypersecretion is a matter of importance. A question which has been raised is whether the control of symptoms and the control of gastric acidity are correlated. This should be answered in the affirmative. As a rule the prognosis is poor if the gastric acidity remains high in spite of treatment. Occasionally an ulcer will heal temporarily in spite of the presence of high gastric acidity, but a recurrence of the lesion is very likely to occur.

DR. CATTELL: The meeting is now open for discussion.

DR. TRAVELL: I should like to raise the question as to whether the beneficial effects of milk depend upon its antacid properties or on some other factors. I think Dr. Summerson has some interesting figures on the neutralization equivalents of milk.

DR. SUMMERSON: If milk is added to tenth-normal hydrochloric acid, it acts as a buffer, but it is not nearly so effective as the common

antacids on the dry basis. It takes about one volume of milk to influence appreciably the acidity of one volume of ordinary gastric juice. For a liter of tenth-normal hydrochloric acid, for instance, one would have to give a liter or more of milk to bring the pH from 1 to about 2.5. Thus the volume of milk required is considerable.

DR. TRAVELL: Kirsner and Palmer have also shown in their curves of gastric acidity in ulcer patients that the neutralizing power of milk within the stomach is not high.

DR. C. H. WHEELER: Although it is at variance with what has been said about the chemical value of milk as an antacid, my impression is that large numbers of patients with ulcer obtain complete symptomatic relief from the use of milk and cream every hour without the use of an alkaline powder.

I should like to ask Dr. Weintraub and the other clinicians whether they have also observed that.

DR. WEINTRAUB: It is my impression that this is so. Milk relieves symptoms and seems to act just as the alkaline powders do.

DR. TRAVELL: It seems that we have no adequate explanation for the symptomatic relief afforded by the use of milk.

DR. CATTELL: Do you wish to comment, Dr. Heffner?

DR. REID R. HEFFNER: So far, most of the discussion has centered around treatment of the acute symptoms of ulcer, which is only a part of the management of this important diathesis or disease. Duodenal ulcer is the most common cause of chronic, recurring dyspepsia. Oftentimes the chronicity of this disorder is lost sight of, and that, in my opinion, is responsible for many of the complications. We have all heard the familiar saying, "Once an ulcer always an ulcer," which is not quite correct, but whoever said, "Once an ulcer always potentially an ulcer," more truthfully expressed it. Patients with duodenal ulcer should have the same kind of explicit advice relative to their management as diabetic or cardiac patients receive concerning their care. Ulcer patients should be taught how to avoid exacerbations of symptoms in order to eliminate complications.

There is no routine way to manage patients with peptic ulcer. Whether it is overwork, worry, nervous tension, the use of tobacco or alcohol, or improper food, the result of the indiscretion is usually the same. These factors and many others contribute to the chronicity of ulcer, and they are the problems that we

perhaps to make a distinction between the effects on spasm or motility and the effects on secretion. The fact that spasm in response to vagal stimulation cannot be abolished by large doses of atropine is well known, but there is a great deal of evidence to show that atropine reduces the volume of gastric secretion. Kirsner and Palmer have some clinical experiments that demonstrate this effect. Using doses of 1 mg. of atropine sulfate four times a day by mouth, they found that the total volume of gastric fluid secreted was reduced about 40 per cent, and also that the neutralizing potency of the antacids was greatly enhanced by these doses of atropine, probably owing to the smaller quantity of gastric juice presented for neutralization. Atropine, however, does not alter the pH so long as any gastric juice is being secreted.

DR. GOLD: Mind you, these doses are about four times as large as the doses recommended in this hospital. One can't give such doses without causing considerable discomfort. And what good are they?

DR. H. B. RICHARDSON: I understand that there is agreement as to the effect of atropine on spasm. When there is definite spasm of the cardia or pylorus, it cannot be relaxed by atropine. That is Dr. Holland's statement, as well as Dr. Gold's.

DR. HOLLAND: Yes. In line with Dr. Gold's statement, that to be of service atropine or belladonna should be used in much larger doses than is usual, I would report that I have recently been using atropine sulfate intravenously in doses of $\frac{1}{100}$ of a grain once or twice a day, and after two or three days reducing the amount to $\frac{1}{100}$ of a grain. This, of course, would not be indicated in peptic ulcer, but where there is prolonged and painful spasm in the gastrointestinal tube beyond the stomach.

One patient, who had been cured of morphine addiction that had resulted from a series of abdominal operations, developed an extremely severe colic. Because of complicated mechanical difficulties Dr. Edward Zabriskie suggested and administered the atropine in this manner to this patient, with quite remarkable results. For some strange reason, the throat dryness and visual symptoms were lacking even with this large dose, and the pain was relieved at once without any other form of sedation. I am not sure that all patients would tolerate atropine given in this manner, but it should be thought of particularly when morphine, or narcotics of that sort, are contraindicated.

Summary

DR. TRAVELL: The medical management of peptic ulcer presents many difficulties in the way of evaluation of therapy. Such evaluation is based chiefly on the subjective appraisal of the patient, on the determination of gastric acidity, and on changes in intestinal motility, none of which have been measured with precision. In particular, it has recently been shown that there are wide discrepancies between the pH values as determined on aspirated samples of gastric juice and as determined simultaneously *in situ* within the antrum of the stomach. Healing of the ulcer may usually be secured by a plan of treatment which combines rest in bed, frequent feedings of soft food, administration of antacids, and possibly the use of atropine. Ambulatory treatment is theoretically undesirable. Bed rest is always indicated in the presence of bleeding, obstruction, impending perforation, or an ulcer large in size. Many factors, especially psychogenic ones, are involved in the prevention of recurrence of the ulcer.

The confusion which exists as to the relative merits of certain antacids may be clarified to a great extent by the following considerations: Antacids are fundamentally of two types, non-buffers and buffers. These are alike in that no significant neutralizing power is exerted until the full theoretic neutralizing dose is added, and therefore these substances are useful only when added in excess. They differ in several respects: When added in the exact equivalent of the amount of acid present, the nonbuffer antacids yield a neutral solution, the buffers a moderately acid solution. When added in excess, the nonbuffers yield an alkaline solution, and the buffers a moderately acid solution, so that in the case of the buffers one can greatly "over-run" without disturbing the normal pH range of the gastric juice. When the pH has been raised, in the case of the non-buffers it requires a relatively small amount of additional hydrochloric acid to bring the pH back to a level of 1 to 2, whereas in the case of the buffers it may require a very large amount of acid to lower the pH to this level. The buffers thus seem to possess a number of theoretic advantages over the nonbuffers. The clinical efficacy of an antacid, however, is determined not solely by its acid-neutralizing potency, but also by other factors, especially its physical characteristics. For instance, the solubility of the antacid influences both the rate of reaction with acid and the rate of removal of the substance from the stomach;

atropine three times a day, which is gradually increased until, in most instances, the patient is receiving about 0.4 mg. of atropine three times a day.

Do you think that dosage is effective?

DR. GOLD: Maybe it is a good idea to introduce a little heresy into the record in regard to atropine. I should like to challenge the view that a dose of 1 cc. of tincture of belladonna, which represents a total of about 0.3 mg. ($\frac{1}{200}$ grain) of atropine, three times daily exerts a significant effect on peptic ulcer patients. There are three facts that need to be borne in mind. The first is that doses of atropine which in animals block the vagus to the heart, and which block the secretory parasympathetic fibers to the salivary glands, have practically no effect in abolishing movements of the intestinal tract. If the vagus is stimulated after such large doses of atropine, the intestinal tract still continues to respond. If one protests that these are experiments on animals, there remains the second fact to puzzle us—namely, the results of experiments directly on man, in which very large doses of atropine are given ($\frac{1}{25}$ of a grain by intravenous injection) and then an analysis is made of the gastric contents. When that is done, one finds that these patients are still secreting gastric juice and hydrochloric acid in abundance, especially after a meal. Furthermore, atropine does not relax the pylorospasm to facilitate examination by x-ray, and if the stomach happens to be cut almost in two by an hour-glass constriction, large doses also fail to relax that spasm.

Then we have the third fact, Dr. Holland's experience and the experience of others—namely, that patients seem to do better when they receive these small doses of atropine. What are these doses doing if one cannot demonstrate any significant effect on the stomach? I know that most gastroenterologists say that patients feel better when they receive such doses of atropine, but there is a way to find out the meaning of that observation, and that is to give them a placebo that has the proper taste or flavor. That kind of a test has never been made. I am convinced that these doses of tincture of belladonna do nothing to the gastrointestinal tract that is important in the treatment of peptic ulcer.

Of course, 1 cc. of tincture of belladonna will cause a great many symptoms, but I think we ought not to assume that the dryness of the mouth and the pupillary effects imply changes in the gastrointestinal tract. The gastrointestinal tract is notoriously resistant to the action

of atropine. The duration of atropine action is also of interest in this connection. In the gastrointestinal tract the effect of large doses lasts about half an hour to three hours, whereas the mouth and eye effects last for days. Hence when one stops giving the drug because the head symptoms have appeared, in the belief that these head symptoms indicate also gastrointestinal effects, I think one is misled.

DR. JOHN DEITRICK: Is there no accumulation of the drug in the body which might account for an effect on the stomach after ten days or two weeks of administration of such small doses?

DR. GOLD: There is. But that applies to other parts of the body as well. As a matter of fact, the accumulation has a greater effect on the head symptoms than on the gastrointestinal symptoms, by reason of the fact that the duration of the effects is longer in the head than in the gastrointestinal tract.

DR. DEITRICK: I have seen patients develop atropine symptoms after a week or ten days on a daily dose of 10 drops of tincture of belladonna. There is no argument about that; the pupillary reaction is absent and the mouth is dry. I wonder whether there is not also an accumulated effect on the gastrointestinal tract.

DR. GOLD: We simply must separate the head from the gastrointestinal tract in talking about atropine. Those are two separate problems. Marked effects in one region do not indicate similar effects in the other.

DR. CATTELL: From the pharmacologic standpoint I think that distinction is extremely important because of the high threshold of the gastrointestinal tract to atropine. Furthermore, the possibility of accumulation would really be eliminated by the fact that excessive salivary effects and eye effects are usually not apparent, owing to the way in which the drug is given, so certainly there would be an insufficient amount of it to affect the gastrointestinal tract, which has a higher threshold.

DR. DEITRICK: I would not accept that. I think we ought to have some direct proof of the presence or absence of an effect on the motility of the stomach.

DR. GOLD: There is this evidence: If one gives a milligram of atropine by intravenous injection, one obtains a reduction of gastric secretion that lasts three hours, whereas the dilatation of the pupil produced by that dose may last three days.

DR. TRAVELL: When we speak of the high threshold to atropine effects, I think we have

Medical News

Naval Officer Procurement

FROM the Office of Naval Officer Procurement, 33 Pine Street, New York City, has come the following announcement:

"Many physicians interested in applying for commissions in the Naval Reserve have made inquiries relating to their status under the recent Executive Order on Manpower. This Executive Order applied only to personnel wishing to volunteer as an enlisted man and not to those eligible for volunteering as an officer. Applications of physicians are desired for existing vacancies in the ranks of Lieutenant (junior grade), Lieutenant, and Lieutenant-Commander. Physicians who have registered under the Selective Service Act and anticipate applying for commission in the Naval Reserve should know that

following making an application it takes two to three months for the commission to be issued. The Director of Naval Procurement is not permitted to request deferment of induction by the Selective Service Board pending consideration of a physician's application for a commission.

"Physical examinations of applicants may be had either at this office; the Branch Office in Buffalo; Marine Recruiting Station, Syracuse; Navy Recruiting Station, Albany; Navy Recruiting Station, New Haven; or by Lieutenant Commander G. P. Berry, M.C., U.S.N.R. Strong Memorial Hospital, Rochester."

PAGE NORTHINGTON
Captain, M.C., U.S.N.R.,
Senior Medical Officer

County News

Albany County

The annual election of officers of the county medical society took place at 8:30 p.m. in the auditorium of the Albany Pharmacy College on December 9. Dr. John J. Phelan, retiring president, presided.

Nominations were as follows: president, Dr. Morgan O. Barrett; vice-president, Dr. John B. Horner; secretary, Dr. Homer L. Nelms; treasurer, Dr. Frances E. Vosburgh; historian, Dr. Emerson C. Kelly. Nomination usually is tantamount to election.*

* * *

At the November meeting of the county society Dr. W. Brandon Macomber spoke on "Principles of Plastic Surgery and Their Application."

Broome County

At the meeting of the county society held in the Binghamton Club on December 8 the Rev. Earle F. Anable, assistant pastor of St. Thomas Aquinas Church, spoke on "The Philosophy of Humor." A colored movie was shown through the courtesy of Agfa Ansco, according to a statement by Dr. Frank M. Dyer, public relations chairman.

The officers of 1943 were elected and will be published in a subsequent issue of the JOURNAL. The wives of the members of the society were invited to the dinner meeting and the wives of those doctors absent in military service were guests of the society.

The retiring president is Dr. Elton R. Dickson.*

* * *

According to the *Endicott Bulletin*, December 3:

A month's practice of handling emergency cases through Ideal Hospital has received praise from Robert T. Johnson, hospital superintendent.

Under the new setup, caused by shortage of doctors, persons needing emergency treatment

are asked to contact their regular physicians. If the physicians called are not available, persons then may call Ideal Hospital where they will receive the name and telephone number of a doctor who is prepared to answer such calls. [See Broome County, December 15 issue.]

"Majority of Greater Endicott doctors, through the Broome County Medical Society, have agreed to serve under the new plan. Each doctor serves a regular period, during which time he is available for all emergency calls."

Cattaraugus County

Dr. Theodore J. Holmlund, who has practiced general medicine and surgery in Cattaraugus for the last twelve years, has opened an office in the Physicians Building in Jamestown according to the *Jamestown Post-Journal*, November 25.

"Dr. and Mrs. Holmlund, and sons, James, 7, and David, 5, will reside at 101 Ellis Avenue. . . .

"Dr. Holmlund is a past-president of the Cattaraugus Medical Society.

"Dr. Holmlund tried for a commission in the Army of the United States in June, but his application was rejected, due to a nonincapacitating disability."

Dutchess County

A regular meeting of the county medical society was held on December 9 at the Golf House, Hudson River State Hospital, Poughkeepsie. A talking film from the Lahey Clinic on the subject of peptic ulcer was shown, after which there was a discussion by Drs. Scott L. Smith and R. H. Breed.

At the regular November meeting Dr. Achsa M. Bean, Major, Royal Army Medical Corps, spoke on "Civilian Military Medicine in Great Britain Today."

Dr. Bean spoke informally of her experiences in London, which were extremely interesting. Her talk is printed in the *Dutchess County Caduceus* and we wish that we had space to reprint it here. She began:

"As you probably know, Great Britain asked over two years ago for a thousand American

thus magnesium trisilicate, a theoretically satisfactory buffer, combines with acid so slowly that practically all of it may leave the stomach before any significant neutralization occurs. Calcium carbonate has probably proved to be the most effective single antacid. In patients who are constipated, a mixture of calcium carbonate and magnesium oxide may be more satisfactory than calcium carbonate alone.

The role of small doses of atropine for the relief of the symptoms of peptic ulcer is another controversial topic. Whether the subjective improvement which patients describe after the oral administration of a total daily dose of 3 cc. or less of tincture of belladonna (equivalent to about 1 mg. of atropine) is in fact due to the atropine remains an open question. It is generally believed that these

doses have some antispasmodic action, but the difficulty is that in careful experiments in both animals and man much larger doses of atropine fail significantly to relax spasm of the sphincters or to influence gastric motility. The value of atropine in reducing gastric secretion is also in dispute. There seems to be no doubt that although the pH of the gastric juice secreted after atropine is not altered, the amount of gastric juice can be diminished by atropine in man, but the experiments in which this is demonstrated involve doses of atropine that are much larger than those commonly used in the treatment of peptic ulcer. It remains to be demonstrated whether the latter doses cause a reduction in the volume of gastric juice secreted, and hence a reduction in the total amount of acid presented for neutralization by food and alkalis.

PROMOTE INSURANCE OR BE A HIRED MAN

Before long it will become evident to every doctor, as it is clearly seen now by a few, that the majority of our citizens of the next decade will meet the cost of medical care by some new plan.

No, the die is not cast. A system of medical service through a federal and state bureaucracy is not inevitable, as some of the defeatists see it.

Out of the present flux of our social relations and economic conditions several developments are possible. Only one development promises well for the man or woman who has dedicated his life to the practice of medicine.

There is a serious effort being made to extend hospital insurance to include the services of staff doctors as incident to hospital services. The Insurance Law specifically prohibits one corporation from furnishing both hospital and medical coverage. At the present time, the Associated Hospital Service of New York has promoted the organization of a corporation, through which affiliate it proposes to write a policy which completely circumvents the intent and purpose of the legislators.

Such a bill as the one introduced in the last Legislature by Mr. Hampton would give the hospitals legal right to hire doctors and sell their services to the public through the contracts of the Associated Hospital Service. Some of our Volunteer Hospital Administrators are not congenially disposed to this idea. Circumstances may force them into unwilling participation.

If no solution of the problem of payment for medical care is provided for the average man and his family by the doctors, we may expect the national and state legislatures to extend the Social Security Law to provide such relief. In this event all doctors are destined to become hired men to the great medical bureaucracy. The license to practice medicine is not a "property right." Here in New York State it will be a simple procedure to amend the Education Law with a provision that only those physicians who sign with the State System of Insurance will be continued on the roster at the time for annual reregistration.

We still have five months in which to promote enrollment of subscribers in the Medical Expense Fund to a sufficient number to assure the authorities that this method will be developed to a successful solution of the problem of meeting the cost of modern medical care.

Every doctor engaged in medical practice should be a Professional Member of the Fund.

Every doctor who is a Professional Member has among his clientele a number of persons and families who will subscribe to this voluntary insurance if the doctor merely advises them to do so.

Every doctor knows intimately at least one employer of a group of persons who, upon his urging, will promote the enrollment of those employees as Subscriber Members of the Fund.

—*Bull. Med. Soc. County of Kings*

"A good home or school uses a minimum of compulsion and a maximum of persuasion, and a church has no compulsion at all at its disposal, only persuasion to rely upon. . . yet age after

age, while empires rise and fall, these three go on —homes, schools, churches—the major builders of all the real goodness that mankind has."—*Harry Emerson Fosdick*

can invasion, friends here believed Lieut. Vickers might have been in the thick of the fighting.

"I am somewhere on the African coast—just recovering from a few days of work," he wrote.

"The phrase indicated he may have cared for casualties resulting from the invasion."

Livingston County

Dr. Charles T. Mann of Caledonia, is acting as assistant to Dr. Homer T. Bull until Dr. Bull is called for service, when Dr. Mann will take over the office practice.

Dr. Mann studied at Strong Memorial Hospital and interned at the Flower Hospital in New York. Since July 1 he has been resident physician at Mary McClellan Hospital in Cambridge. Dr. and Mrs. Mann will make their home in Genesee.*

. . .

The *Dansville Express*, December 3, said that "Dr. Simon King was appointed Town Health Officer of North Dansville, at a recent monthly meeting of the Town Board, succeeding Dr. Alden J. Townsend, resigned, who has entered military service. Dr. King will complete the unexpired term of Dr. Townsend or serve until his return."

Monroe County

Dr. Fred W. Stewart of the Memorial Hospital in New York City spoke at the regular meeting of the Rochester Academy of Medicine, on December 1, on "Chronic Atrophic Gastritis and Gastric Cancer," according to the *Bulletin*.

The work at the Memorial Hospital on the relationship between diet, diet deficiencies, gastritis, and the production of cancer is reported to be very interesting. It is a privilege to hear Dr. Stewart.

At the January meeting a round-table discussion on "Tetanus" is to be presented. Later in the season "Poliomyelitis" and the Sister Kenny treatment will be discussed.

. . .

The annual meeting of the county society was held on December 15. The officers elected at this meeting will be published in a later issue of the *JOURNAL*.

Dr. George W. Cottis, president, Medical Society of the State of New York, was the guest speaker at the meeting.

. . .

"Two Months in England" is the subject of an interesting article in the November *Bulletin* and its author is Dr. William A. Sawyer. Speaking of the English people he says: "They have become quite fatalistic. They go about their life believing everything will be all right until the bomb with their name on it comes along. There seems to be no doubt in their minds as to the final outcome and they are most appreciative of our partnership with them. If they do not show the same hectic effort some of our people display, it is because they have been at it a couple of years and have settled themselves for a long, steady pull. To them it is a marathon race instead of a hundred-yard dash."

New York County

The following officers were elected at the annual meeting held on November 23:

President-Elect..	Conrad Berens, M.D.
First Vice-President.....	Francis N. Kimball, M.D.
Second Vice-President.....	Roy B. Henline, M.D.
Secretary.....	B. Wallace Hamilton, M.D.
Assistant Secretary.....	Beverly C. Smith, M.D.
Treasurer.....	Fenwick Beekman, M.D.
Assistant Treasurer.....	John Carroll, M.D.
Censors (for three years)...	Harold B. Davidson, M.D. Howard C. Taylor, Jr., M.D.
Chairman, Com. on Legislation	John B. Lauricella, M.D.
Chairman, Com. on Public Relations.....	John DeP. Currence, M.D.
Chairman, Com. on Medical Economics....	William B. Rawls, M.D.
Chairman, Com. on Membership.....	Carl Binger, M.D.
Trustee (for five years).....	Maximilian A. Ramirez, M.D.
Delegates to the Medical Society of the State of New York (for two years).....	Horace Ayers, M.D. Albert A. Cinelli, M.D. B. Wallace Hamilton, M.D. Alfred M. Hellman, M.D. David J. Kaliski, M.D. Francis N. Kimball, M.D. Peter Murray, M.D. Maurice C. O'Shea, M.D. Ada Chree Reid, M.D. Beverly C. Smith, M.D.
Delegate to the Medical Society of the State of New York (for one year).....	Samuel M. Kaufman, M.D.

. . .

The interesting item below was recently printed in the *Journal* of the New York County Society.

NEW YORK PHYSICIANS EDIT "DAILY SPAEF"

New York physicians are prominent on the staff of the *Daily Spaef*, service newspaper of the South Pacific American Expeditionary forces. Lieutenant-Commander Albert S. Hyman is editor-in-chief and the editorial board includes Lieutenant-Commander David I. Arbuse, Lionel H. Auster, Hammond Moody, George W. Cramp, and Henry H. Kessler.

These physicians are part of an advance naval base, with a large staff of specialists and hospital corpsmen, in the Southern Pacific. Commander Hyman is medical executive officer and chief of medicine of the outfit; George W. Cramp, of Methodist Hospital, Brooklyn, is chief of x-ray; Hammond Moody, of French Hospital,

doctors. At that time, they wouldn't have any talk of women. They must be men. I got a notice with the first group because I have a strange first name (Achsa), and it led into complications in Great Britain as well as over here. But they wouldn't take women then. A little later—I want you to appreciate this story thoroughly—they looked for the thousand men. They didn't get them. They got some. When I got to Great Britain, there were already twenty-eight American men in civilian capacities and a fair number in the Royal Army Medical Corps. But when they failed to get a thousand men, the British Red Cross said, "Well, we would like to get at least ten women because we couldn't get a thousand men."

"So we went to England. There are so many things one can tell. It was a very wonderful year for me. But I thought of the things which might interest you most, the things in reference to how civilian and military medicine were organized, what happened to the doctors when war came and what went on. We were immediately assigned to the Emergency Medical Service, and I can tell you most about the London area where for five months I worked in a civilian hospital. . . ."

Erie County

Dr. Harold F. R. Brown, first vice-president, was nominated without opposition on November, 24 to succeed Dr. Harvey P. Hoffman as president of the Medical Society of the County of Erie.

Others nominated at a meeting in the Hotel Statler in Buffalo are: first vice-president, Dr. John D. Naples; second vice-president, Dr. Patrick H. J. Buckley; treasurer (for a second term), Dr. Ralph M. De Graff; secretary (for a 14th term), Dr. Louise W. Beamis-Hood.

Members of the board of censors (five to be chosen), Dr. Francis E. Fronczak, Dr. Charles W. Bethune, Dr. Eugene M. Sullivan, Dr. Elmer T. McGroder, Dr. John C. Brady; delegates to the State Society (eight to be elected), Dr. Joseph C. O'Gorman, Dr. Alfred H. Noehren, Dr. Brady, Dr. Harold M. Johnson, Dr. Thurber Le Win, Dr. Norman C. Bender, Dr. Mary J. Kazmierczak, Dr. John T. Donovan.

These were nominated as chairmen of standing committees: Dr. Edmund A. Mackey, legislation; Dr. John W. Kohl, public health; Dr. Porter A. Steele, economics; Dr. Arthur F. Glaeser, membership.

A proposed amendment restricting membership to citizens was rejected by a narrow margin. At present physicians with first naturalization papers are eligible.*

. . . .

A special meeting to hear Dr. Winthrop M. Phelps, of Baltimore, talk on "The Treatment of Cerebral Palsies" was held at Children's Hospital under the auspices of its medical staff on December 2. The meeting was open to the entire medical profession.

Dr. Phelps, medical director of the Children's Rehabilitation Institute, Baltimore, is recognized as the outstanding authority in the United States on cerebral palsy—the conditions

of children born with physical defects. He spent the day at the Children's Hospital, reviewing the work of its cerebral palsy clinic established a year ago.

The meeting is part of the Children's Hospital fiftieth anniversary observance.*

Essex County

From the *Ticonderoga Sentinel*, December 3, the following was clipped:

"On Tuesday evening, December 1, a celebration was held in the Memorial Hall auditorium in Mineville in honor of Dr. T. J. Cummins, who on that date completed twenty-five years of service in the Town of Moriah.

An illuminated parchment scroll was presented to Dr. Cummins, bearing the following inscription:

1917-1942

THE CHARACTER AND WORTH
OF A MAN IS MEASURED BY
THE LOVE, LOYALTY AND
CONFIDENCE OF HIS FELLOW
MEN. THIS SCROLL IS IN-
SCRIBED TO SHOW OUR DEEP-
EST APPRECIATION TO
THOMAS JOSEPH CUMMINS, M.D.
FOR TWENTY-FIVE YEARS OF
DEVOTED AND UNTINTED
SERVICE TO THE COMMU-
NITY . . . AS AN EMINENT PHY-
SICIAN, A SKILLED SURGEON,
AND AN EXEMPLARY CITIZEN.

FROM
THE PEOPLE OF THE TOWN
OF MORIAH
HE LIVES TO SERVE

"In addition to this scroll, various other gifts included a complete desk and desk set and a \$1,000 War Savings Bond. Mr. J. R. Linney served as master of ceremonies, and introduced the following speakers: The Reverends A. C. Kenny, H. Smith, and S. J. Wojciechowski. The presentation was made by Mr. George C. Foote.

"A bouquet of flowers was also presented to Mrs. Cummins.

"Funds for this occasion were contributed by the residents of the Town of Moriah."

Genesee County

Dr. Ward B. Manchester, of Batavia, was named president of the county medical society to succeed Dr. Raymond L. Warn, of Oakfield, at a meeting at the Batavia Club on December 3. Dr. I. A. Cole, of Batavia, was chosen vice-president, and Dr. Peter J. Di Natale was renamed secretary and treasurer.

Dr. Herman E. Pearse, of Strong Memorial Hospital, Rochester, spoke on "Biliary Tract Diseases, Their Diagnosis and Treatment."*

Herkimer County

"Lieut. H. Dan Vickers, U.S.N., past-president of the Herkimer County Medical Society, is back in the country after serving in the North African campaign, it was learned today," said the *Herkimer Telegram* on November 30.

"The former Little Falls doctor has joined his wife, the former Frances Steel, of Utica, at Roanoke, Virginia.

"In a letter received this weekend by Mannie Feldman, Lieut. Vickers told of serving on board a ship off the African coast on Armistice day.

"While the letter did not mention the Afri-

* Asterisk indicates item is from local newspaper.

treasurer, I. N. Peterson, M.D.; delegate, C. S. Johnson, M.D.; alternate, F. Shaw, M.D.; censors, Drs. F. A. Carpenter, F. H. Spencer, and J. Jakes.

Dr. Johnson discussed the available courses for Postgraduate Education.

There was no unfinished business.

A letter from Dr. Mitchell was read and the president appointed Dr. Moulton to act as chairman of the School Health Service Committee and Dr. Hartnagle as chairman of the Tuberculosis Committee as subcommittee under the Public Health Committee.

Dr. Hugh Gregory, superintendent of Binghamton State Hospital, spoke to the society on "Problems in Psychiatry in Wartime." A round-table discussion with questions and answers was then held.—*I. N. Peterson, M.D., Secretary.*

Washington County

The *Glens Falls Times* of December 3 said that "Dr. Silas J. Banker was in Albany recently to attend the meeting of the county secretaries of the New York State Medical Association. In the absence of Dr. D. M. Vickers, of Cambridge, Dr. Banker represented Washington County at the meeting. Dr. Banker was secretary of the Washington County Medical Society for thirty years."

Westchester County

In the December issue of the *Westchester*

Medical Bulletin the following announcement was made:

"OUR OBLIGATION TO OUR COLLEAGUES IN THE SERVICE"

If you are a member of the society, you will find enclosed with this *Bulletin* a poster entitled "Our Obligation" which you are requested to sign and display in your office or waiting room. This is one of a number of steps taken or anticipated by the county medical society in an effort to preserve, as far as is practicable, the clientele and professional contacts of our colleagues in service.

The poster merely expresses to those of your patients who formerly were attended by a doctor now in service the hope that they will resume their former relationship with your colleague when he returns from military service. It is hoped that you will cooperate in this effort by displaying this poster.

. . .

Also in the *Bulletin* we found this interesting item:

"Major Robert Lateiner of the Medical Corps of the U.S. Army Air Forces, formerly of New Rochelle, is the author of a thrilling story of the evacuation by air of the European residents of Burma during the occupation of that country by the Japanese. The article entitled, "The Heroism of Burma's Dunkirk," appeared first in *Cosmopolitan* of November, 1942, and was reprinted the same month in the *Reader's Digest* for November, 1942. Major Lateiner has been in active service since November, 1940."

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Raymond C. Almy	60	Syracuse	November 29	Auburn
Giuseppe Carlucci	74	N. Y. Univ.	December 11	Rochester
Francis J. Carr, Sr.	79	Niagara	December 10	Buffalo
Carter J. Crippen	90	Michigan	November 12	Constable
William J. Dougherty	65	Bellevue	November 26	Yonkers
John D. W. DuMond	77	Bellevue	March 9	Olive Bridge
Thomas W. Hastings	69	Johns Hopkins	December 5	Kinderhook
Fred S. Heimer	61	Baltimore Med.	November 27	Unadilla
Edward Joslin	75	Albany	November 24	Whitehall
Philip Simerman	53	L.I.C. Hospital	October 23	Bronx
Louis E. Slayton	80	Vermont	November 29	Spencerport
Samuel G. Tracy	75	Bellevue	December 7	Manhattan
Clarence D. Vrooman	82	Albany	November 24	Ellenville

is chief of genitourinary surgery; David I. Arbuse, of Mount Sinai Hospital, is chief of neuropsychiatry, and Henry H. Kessler, of Newark Beth Israel Hospital, is chief of orthopaedic surgery. The work of this outfit consists of handling the casualties occurring in the South Pacific area of action. Results have been extraordinarily good and compare favorably with the figures of any hospital in New York.

The *Daily Spaef* is published in a tent, often in the midst of naval activities. Its editors, and indeed all of the members of the outfit, are eager for mail from home and for the *Journal*, which is their "only contact" with their former life as "just plain civilian doctors."

Dr. Bernard Sachs, past-president of the New York Academy of Medicine, and one of the world's leaders in neurology, was honored in November at a special ceremony at the Mount Sinai Hospital in tribute to his "sixty years of participation in the progress of medicine." Two hundred neurologists and psychiatrists attended the ceremony, at which Dr. Foster Kennedy, chief of the Neurological Service at Bellevue Hospital, presided.*

The *World-Telegram*, New York City, recently carried a special feature story on Dr. Howard Lilienthal—"brisk and advanced at 81," the reporter described him. He recalled in the interview the hearty old days when he saw a celebrated surgeon sharpen a scalpel by stropping it on his shoe in the midst of a critical operation and often saw another hold the knife in his teeth between cuts, as well as other interesting incidents in his early years of practicing medicine.

Dr. Lilienthal was a surgeon on the staff of Mt. Sinai Hospital for forty-eight years. The hospital is now having its 90th anniversary exhibit and planning a celebration in honor of its 500,000th patient.

Queens County

Medical society officers elected on November 24 to serve during 1943 are as follows: president-elect, W. Guernsey Frey, Jr., M.D.; secretary, Ezra A. Wolff, M.D.; assistant secretary, Leo Goldberg, M.D.; treasurer, John J. Sheehy, M.D.; assistant treasurer, Arthur A. Fischl, M.D.; historian, Joseph S. Thomas, M.D.; directing librarian, Alfred Angrist, M.D.; assistant directing librarian, Sol Axelrad, M.D.; trustees, Goodwin A. Distler, M.D., James R. Reuling, M.D., and Joseph Wrana, M.D.; censors (Third District)—Daniel Swan, M.D., (Fourth District)—Meyerson Coe, M.D., (Fifth District)—Louis Sarrow, M.D., (at large)—Henry A. Reisman, M.D.; delegates, W. Guernsey Frey, Jr., M.D., and H. P. Mencken, M.D.; alternates, Morris Bender, M.D., Frank Cerniglia, M.D., and Arthur A. Fischl, M.D.

Schenectady County

Dr. William F. Nealon was elected president of the county medical society at the annual meeting on December 3 at the Mohawk Golf Club. He succeeds Dr. Joseph H. Cornell.

Dr. Charles F. Rourke was elected vice-presi-

dent, the position formerly held by Dr. Nealon, and Dr. Nelson H. Ruse was elected secretary to replace Dr. Gomer Richards. Dr. Alfred S. Grussner, who assumed the office of treasurer when Dr. Raymond H. Warner was called into active service, was named to that office.

Dr. Cornell, Dr. Harry E. Reynolds, and Dr. William L. Fodder were elected to the board of censors. Dr. F. Leslie Sullivan was elected delegate to the state organization with Dr. Rourke as alternate and Dr. Beverly L. Vosburgh was elected delegate to the fourth District branch with Dr. Ralph D. Reid as alternate. Dr. E. MacDonald Stanton was elected to the compensation committee.

The meeting followed a dinner. Entertainment followed the meeting.*

"A portable emergency medical field set for use by physicians in case of bombings, sabotage, or other emergencies was presented to Dr. James M. Blake, chief of the emergency medical service of Schenectady County on December 7 at the Schenectady County Tuberculosis Hospital, Glenridge Road, by Dr. Joseph Peter Huguot, national medical director of the Medical and Surgical Relief Committee of America. This is the second set presented by the committee to Schenectady defense officials and the fifty-third to various officials in New York State.

"The presentation marked the official opening of a week's drive throughout the county for the collection of surplus medical and surgical supplies and for funds to purchase additional sets for the U.S. coast guard and emergency stations in target areas throughout the United States and Alaska.

"The name of any individual or group who contributes the cost of a set (\$110) will be inscribed on a name plate affixed to the set.

"The drive was conducted under the joint auspices of the Emergency Medical Service of Schenectady County Medical Society under the direction of Dr. Blake, Mrs. Charles F. Rourke, and Mrs. William M. Mallia.*

Schoharie County

Dr. Ward L. Oliver, prominent Cobleskill physician, has been appointed district medical officer of the Health Preparedness Commission of the New York State War Council, it was recently announced in a local newspaper.

He will be stationed in Albany and will direct the emergency services in twenty-five counties of the northern district of the office of civilian protection. He reported for duty December 1.*

Tioga County

The annual meeting of the county medical society was held in November following a dinner meeting at the Green Lantern Inn, Owego, New York.

The minutes of the October meeting were read and approved.

The panel for officers for 1943 was read. There were no additional nominations. Dr. Moulton moved and Dr. Johnson seconded that one ballot be cast for the panel nominated, carried and the following officers declared elected for 1943: president, J. B. Schamel, M.D.; vice president, H. L. Knapp, Jr., M.D.; secretary

cent in excess of the rated capacity of the hospitals, and is at present about 15 per cent.

Additional subjects that still need study were listed as follows:

The system of records and reports in regard to patients; admissions; the bearing of syphilis control measures on the future population of State hospitals; research as to possible relationships of inadequate nutrition to mental illness; and vocational training, adjustment, and employment of patients after parole or discharge.

Mr. Folks emphasized that successful operation of parole and family care requires care in the selection, supervision, and follow-up of patients returned to the community.

Members of the Commission

The Commission appointed by the Governor consisted of Homer Folks, secretary of the State Charities Aid Association, as chairman; Stanley P. Davies, Ph.D., executive director of the Community Service Society of New York, whom the Commission appointed as its vice-chairman; Dr. Clarence O. Cheney, medical director of the Westchester Division of the New York Hospital; Miss Hester B. Crutcher, director of Psychiatric Social Work, State Department of Mental Hygiene; Dr. Lawrence Kolb, of the U.S. Public Health Service; Dr. Nolan D. C. Lewis, director, New York State Psychiatric Institute and Hospital; Dr. Frederick W. Parsons, former commissioner of Mental Hygiene; Dr. William L. Russell, consulting psychiatrist, Payne Whitney Psychiatric Clinic, New York; Dr. George S. Stevenson, medical director, National Committee for Mental Hygiene; Dr. William J. Tiffany, commissioner of mental hygiene, and Dr. Karl Bowman, of Bellevue Hospital, who removed to California in November, 1941.

Miss Katharine G. Ecob, executive secretary of the State Committee on Mental Hygiene of

the State Charities Aid Association, served as secretary of the Commission, and Miss Edith Holloway, formerly assistant director of the Family Welfare Association of the District of Columbia, as assistant secretary.

The Commission created a Committee on Newer Modes of Treatment, headed by Dr. Nolan D. C. Lewis as chairman, and a Committee on Parole and Family Care, with Stanley P. Davies as chairman.

Dr. Frank F. Tallman, director of clinical psychiatry at the Rockland State Hospital, was detailed to the Commission as director of its Committee on Parole and Family Care, and served until he accepted a position in Michigan. He was succeeded on the Commission's staff by Dr. Neil D. Black, of the Marcy State Hospital.

Miss Holloway made for the Commission "A Study of Social Services to Paroled Patients from Rockland State Hospital," and Miss Sue H. Mason, of the staff of the Brooklyn Bureau of Charities, "A Study of Social Service to State Hospital Patients Paroled in New York City." The Commission's report stated that the purpose of these two special studies was to throw light on the value of adequate social service in handling paroled patients and to better organization of parole in New York City. They included extremely interesting outlines of case histories in which the friendly and sustained interest of social workers was a dynamic factor in the rehabilitation of patients.

Dr. Benjamin Malzberg, of the Statistical Bureau of the State Department of Mental Hygiene, was loaned to the Commission to study extensive (but as yet incomplete) data on the results of insulin and other shock treatments in the State hospitals, and a detailed memorandum from him on the subject was included as an "Appended Paper" with the Commission's report.

Improvements

The bed capacity at Nathan Littauer Hospital in Gloversville will be increased about thirty in order to meet the steadily increasing demand for local hospital facilities, it was announced at a meeting of the board of directors, held in November. This would boost the beds from 150 to 180.

Increasing the present capacity of the hospital can be accomplished, hospital authorities said, by utilizing now unused space. Thus, it will not be necessary actually to enlarge the building.

It was stated that the minor changes necessary to make available this additional space would cost only a few hundred dollars. Immediate steps are being taken to accomplish this enlargement.

This is the second time in about two years that it has been necessary to expand the bed capacity at the hospital.*

Sidney Hospital construction is progressing rapidly and it is hoped that on or about February 1 it will be ready for use. This has been made possible by government funds of \$133,000, a bond issue in the town of Sidney of \$35,000, and

by funds raised by a campaign conducted in the Scintilla plant by the Employees Ignition Association, and a house-to-house canvass made by the women of Sidney and Sidney Center. However, it is necessary to raise a little over \$5,000 in order to assure the opening by February 1.

In addition to these, a substantial donation of \$10,000 has been made by the Scintilla plant, \$2,000 by the Unadilla Silo Company of Unadilla, and several smaller donations of \$300 or more by interested people in and around Sidney.*

The Veterans' Memorial Hospital in Ellenville has recently received from the Davella Mills Foundation a contribution for the purchase of new and additional equipment in the sum of \$1,000. This contribution was received through the efforts of Miss Elizabeth Keeler, a former resident of this village and daughter of Mrs. Addie Ernoudt.*

The Arnot-Ogden Hospital in Elmira, has opened an unused section, with beds for 21

* Asterisk indicates that item is from local newspaper.

Hospital News

Louis H. Pink Named President of Three-Cents-A-Day Hospital Plan

ASSOCIATED Hospital Service of New York has announced the election of Louis H. Pink, New York State Superintendent of Insurance since 1935, as president of the non-profit three-cents-a-day plan which protects 1,300,000 New Yorkers against unforeseen hospital bills.

Mr. Pink will fill the vacancy created on October 22 by the death of Dr. S. S. Goldwater.

Long experienced in social, educational, and charitable activities, Mr. Pink will assume his new duties at the moment Associated Hospital Service of New York is devoting its effort toward large-scale cooperation with Community Medical Care, Inc., which extends similar low-cost protection to subscribers of Associated Hospital Service against surgical expense up to \$150 at a cost of a few cents a day.

Mr. Pink has been connected with the State Insurance Department for ten years. He has been Superintendent of Insurance for seven and a half years, which is the longest term one man has filled that office since the first superintendent, William Barnes, served for ten years, beginning in 1859.

Recently Mr. Pink has been serving as co-ordinator between state insurance commissioners and the Federal government in trying to bridge the gap between government and private war damage insurance.

He is chairman of the board of the National Public Housing Conference, member of the executive committee of the National Association of Insurance Commissioners, and vice-chairman of the board of trustees of St. Lawrence University.

Mr. Pink will be assisted by the present officers of the Associated Hospital Service of New York.

They include David H. McAlpin Pyle, chairman of the executive committee; Frank Van Dyk, vice-president in charge of enrollment and subscriber relations; Dr. Paul Keller, vice-president and medical director; Paul G. Drescher, vice-president and comptroller; Harry Sesan, vice-president and auditor; Allen B. Thompson, vice-president and actuary; and James de Socarras, secretary. He has been treasurer of the New York Child Labor Committee for many years. He was appointed to the State Housing Board in 1927 by Governor Alfred E. Smith and later became chairman of the board. It was his work with the Housing Board that made him first choice for the State Insurance position.

He takes over the leadership of Associated Hospital Service of New York at a time when living costs, income taxes, and other expenses make protection against the cost of hospital and surgical care doubly important to the average American. Seventy-six hospital service organizations using the Blue Cross Plan have been created throughout the country and are now affording protection to 10,000,000 Americans. Associated Hospital Service of New York is the largest of these nonprofit groups.

On October 31, 1942, the New York Plan, although not yet eight years old, had assets of \$9,894,082.99. In addition to a voluntary \$2,000,000 reserve for epidemics and other possible emergencies, it had a surplus of \$5,121,865.19 for protection of its subscribers.

Since its formation in 1935, the organization has paid more than \$37,000,000 to the hospitals that care for its subscribers, of whom approximately 400 are admitted daily to hospitals. Last year's payments alone amounted to almost \$7,000,000.

Decrease in Insane Patients in State Hospitals

FOR the first time in fifty years since New York State assumed care of the insane, the rate of increase in the number of patients in residence in civil State hospitals has not only been halted, but the number is decreasing. Governor Lehman was recently informed by the Temporary Commission on State Hospital Problems, which he named on November 9, 1940, to survey the continually growing population of these nineteen institutions.

Members of the Commission, headed by Homer Folks, its chairman, have submitted a progress report on the survey of the Commission and the successful steps which it recommended, initiated, and helped the State Department of Mental Hygiene and the State hospitals to put into effect to check the yearly increase in the number of insane requiring institutional care.

The Commission not only reported that it is possible to reduce the number, but that this actually has been accomplished.

A high light of the report was that during the

four months ending November 1 this year, the number of patients in residence in hospitals had for the first time decreased. The Commission believes that if the psychiatric and social service personnel of the hospitals is not too seriously depleted by war, the number may be kept down, and even further decreased.

The report stressed as the chief factors in the notable decrease the increase in and the earlier use of parole, the boarding out of larger numbers of carefully selected patients in family homes, and progress in testing and using new methods of shock treatment. The survey was made with the full cooperation of the State Department of Mental Hygiene and the hospitals.

In appointing the Commission, the Governor stated that the annual increase had averaged 2,392 patients a year for the last ten years. To provide beds for the steadily increasing patient population, the State has spent large sums both from current appropriations and bond issues, but without ever being able to eliminate overcrowding which, at times, has been as high as 35 per

The White Plains Hospital Association presented the second of its current series of six public health lectures on Monday evening, November 9. The speaker was Dr. Iago Galdston, Director of the Medical Information Bureau of The New York Academy of Medicine. His subject was the "Story of Modern Medicine." It was most enthusiastically received. The second lecture in the series was on December 14, at 8:30 p.m., and the speaker was Dr. Alan Gregg, Director for the Sciences of the Rockefeller Foundation. He spoke on "Modern Medicine in China."

These lectures are jointly sponsored by the hospital, the County Health Department, and the County Medical Society.

. . .

Contrary to the announcement carried in last month's *Bulletin*, we now learn that the Yonkers Professional Hospital is still accepting patients. Negotiations on the rental of its premises have been reopened and it is hoped that a settlement can be reached which will permit this institution to carry on indefinitely.—*Westchester Med. Bull.*

. . .

The modern, only partially completed group of buildings New York State is constructing for the Willowbrook School for Mental Defectives at Willowbrook, Staten Island, will be operated by the Army Medical Corps as a wartime hospital, Col. Frank G. Devoe has announced.

Colonel Devoe and a staff of 100 already have moved into the hospital and are preparing it for use. Actual operation will not begin, however, until negotiations with the city and the state are completed, he said.*

. . .

Dr. Walter Rathburn, superintendent of Newton Memorial Hospital, told the story of Chautauqua County's fight against tuberculosis in a talk before the annual meeting of the medical society of that county. This fight, he said, began in 1913, when \$150,000 was bequeathed by Mrs. Elizabeth Newton, a lifetime resident of Fredonia, to erect a county tuberculosis institution. The Newton Memorial Hospital was erected in memory of Mrs. Newton's two sons. The scope of this work has increased in the succeeding years, with the opening of additional clinics and the addition of new buildings.

. . .

Dr. David W. Park, of New York City, inspector of Welfare Institutions in New York State for over forty years, recently assumed his duties as superintendent of Potsdam Hospital, replacing Arthur R. Carvolth, who has entered military service, after being in charge of the hospital since December 29, 1940.*

. . .

Dr. William Ryan has been named by the board of managers of the Montgomery Sanatorium to succeed Dr. William A. Bing, who has retired.

Dr. Ryan, formerly a resident of Syracuse, is a graduate of Syracuse University Medical School and was at one time connected with the Schenectady County tubercular hospital. He comes from the Herman Biggs Memorial Hospital at Ithaca, where he was stationed for about four years.

Dr. Stella Partyka, who has been temporarily in charge of the sanatorium since the resignation of Dr. Bing, during the early summer, will remain as assistant medical director.*

. . .

Courses in the Kenny System of treating infantile paralysis will be given for registered nurses of Westchester after January 1 at Grasslands Hospital, Dr. William A. Holla, County Health Commissioner, announced at a demonstration of the method held in November before about 250 county physicians, medical students, and nurses in New York Hospital, Westchester Division.

The training center will be under the direction of the County Health Department, Grasslands Hospital, and the Westchester Chapter of the National Foundation for Infantile Paralysis.*

. . .

Scientists employed their unique method of honoring a distinguished confrere in paying tribute to Dr. Bernard Sachs, noted neurologist, for "sixty years' participation in the progress of medicine" at a ceremony at the Mount Sinai Hospital on November 24. A volume of original papers on scientific research specially contributed for this purpose by noted physicians and scientists in America and abroad was presented to Dr. Sachs on this occasion.

From a surgeon in the British Navy aboard a battleship somewhere at sea, from a scientist in occupied Denmark, and from 81 other physicians and research workers, these papers were contributed for the 700-page presentation volume, a special issue of the *Journal of the Mount Sinai Hospital*. The presentation was one of the notable events in connection with the observance by Mount Sinai Hospital of its ninetieth anniversary.

The volume is a gift from 102 physicians, friends, associates, and former students of Dr. Sachs.

. . .

Dr. Sidney W. Bisgrove, first assistant physician at the Marcy State Hospital since 1931, became superintendent of the Syracuse State School on November 1.

A veteran of twenty-one years' service with the Utica State and Marcy Hospitals, he succeeds Dr. Charles E. Rowe, who died July 30, 1942.*

Physical ills are the taxes laid upon this wretched life; some are taxed higher, and some

lower, but all pay something.—*Lord Chesterfield, Letter to his son*

patients, including eleven private rooms and two semiprivate rooms of five beds each.

St. Joseph's Hospital has reopened the sixth floor with accommodations for 26 patients.

The Arnot-Ogden floor is furnished with new equipment for which Superintendent William D. Entley began negotiating last May.*

. . .

The Hubbard Tank, device for the treatment of infantile paralysis, is now in use at Albany Hospital for all chronic polio patients in the county.

Also available to other crippled children, the tank was dedicated on November 19 by members of the Albany Chapter of the National Foundation for Infantile Paralysis and the Albany

Association for the After-Care of Infantile Paralysis, Mayor Corning, and hospital officials.

The stainless steel tank was purchased for the hospital by the county chapter of the National Foundation with part of the funds raised in the campaign last January. Installation and operating costs are being paid by the hospital. The city will pay the salary of a physiotherapist. The After-Care Association has donated its ambulance, with driver and orderly, to carry patients to and from the hospital.*

. . .

According to the *Ulrich Press*, December 7, the new federal hospital there "must be built by April 15."

Newsy Notes

The Department of Hospitals in New York City has put into effect a series of pay increases for employees in the lower-paid categories. Commissioner Edward M. Bernecker has posted announcements revealing his pleasure at being able to do something toward eliminating the important grievance of low salaries.

Here is the new schedule:

Nurses, previously earning \$900 and \$1,260 a year, get an increase of \$150, or an additional \$3 a week in the pay-check.

Hospital helpers, previously earning \$480 with maintenance and \$780 without maintenance, get an additional \$120.

Hospital attendants, earning \$540 with maintenance and \$480 without maintenance get an additional \$120 a year.

Practical nurses—same schedule as hospital attendants.

Laundry workers—same schedule as hospital attendants.

Cooks, previously earning \$960 with maintenance and \$1,200 without maintenance, an additional \$150 a year.

Others getting salary raises of \$120 a year are seamstresses, barbers, and tailors.*

. . .

The new line-up of promotions and war leaves among the top-ranking people in the New York City Department of Hospitals, effective December 1, are as follows:

Dr. Israel Magelaner, medical superintendent of Harlem Hospital, to medical superintendent of Kings County Hospital, for the duration, in place of Dr. Emanuel Giddings, who has become a colonel in the Army.

Dr. Emanuel Lifshutz, deputy medical superintendent at Kings County, to medical superintendent at Harlem Hospital, in place of Dr. Magelaner.

Dr. Alexander Kruger, medical superintendent of Lincoln Hospital, to medical superintendent of Metropolitan Hospital, in place of Dr. I. Herbert Scheffer, who has become a major in the Army.

Dr. Henry W. Kelbe, deputy medical superintendent of Metropolitan Hospital, to medical superintendent of Lincoln Hospital, in place of Dr. Kruger.

Dr. Stephen H. Ackerman, medical superintendent of Fordham Hospital, to medical superintendent of Coney Island Hospital, in place of Dr. R. A. Wyman, who has become a major in the Army's Public Health Service.

Dr. Nathan Smith, deputy medical superintendent of Morrisania Hospital, to medical superintendent of Fordham Hospital, in place of Dr. Ackerman.

Dr. Samuel A. Schuyler to acting medical superintendent of Triboro Hospital, in place of Dr. Alfred Ring, who has become a captain in the Army.

. . .

New York State needs 1,867 more nurses, according to Miss Emily J. Hicks, executive secretary of the New York State Nursing Council for War Services, in an appeal for young women to take nursing courses to aid in the war effort.

New student enrollments show a 10 per cent increase nationally in the summer and fall classes, Miss Hicks said. "This would make us happy," she commented, "were it not for the fact that a 25 per cent increase would be necessary to reach the government-estimated quota of 55,000 new students this year."

Miss Hicks said that the armed forces of the United States are asking for 3,000 nurses for each month, owing to their expansion.

"Inactive nurses are returning to work to help out in the emergency," she said, "and Red Cross aides, volunteers, and other types of auxiliary workers are proving wonderfully helpful in our hospitals. However, it is to the young people we must look for most of the war work with a future that nursing is, and those midterm enrollments are our next hurdle."

Recruitment committees already are hard at work, and their efforts are being reinforced by the Federation of Women's Clubs, which has offered its services to get enrollees. Miss Hicks suggested that those who are qualified to take up nursing should get in touch with the Nursing Council in their home districts, or write to the State headquarters, 152 Washington Avenue, Albany—*New York Times*, December 7.

. . .

NOW!

A Revolutionary Development in Intranasal Sulfonamide Therapy

PAREDRINE-SULFATHIAZOLE SUSPENSION combines, for the first time, in a single stable preparation the effective vasoconstriction of 'Paredrine'* and the potent bacteriostatic action of sulfathiazole.

This preparation owes its remarkable effectiveness largely to the newly-developed 'Microform'* crystals—*approximately 1/1000 the mass of ordinary sulfathiazole crystals*. These crystals—pictured at lower right—form a suspension which: (1) approximates a solution in its ease of application... (2) deposits the sulfathiazole uniformly... (3) passes freely through the ostia of the sinuses.

Therefore, Paredrine-Sulfathiazole Suspension represents a revolutionary development in the treatment of nasal and sinus infections, particularly those secondary to the common cold.

*Trademark

Paredrine- Sulfathiazole Suspension



SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

Say you saw it in the NEW YORK STATE JOURNAL OF MEDICINE

COMPARATIVE PHOTOMICROGRAPHS OF ORDINARY CRYSTALS AND 'MICRAFORM' CRYSTALS



Ordinary sulfathiazole crystals (450x)
Each small division of the scale = 2 microns



'Microform' sulfathiazole crystals (450x)
Each small division of the scale = 2 microns

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D.; and Charles D. Post, M.D.

War Medicine and Surgery

A course in War medicine and surgery has been arranged for the Oneida County Medical Society. The lectures will be given at Hutchings Hall, Utica State Hospital, in Utica, at 8:30 P.M.

January 26—"Nervous Conditions Associated with Warfare"

Foster Kennedy, M.D., professor of clinical medicine (neurology), Cornell University Medical College, New York City.

February 2—"General Principles of Treatment of War Injuries"

Philip Duncan Wilson, M.D., clinical professor of orthopedic surgery, Columbia University, College of Physicians and Surgeons. Address: Hospital for Ruptured and Crippled, 321 East 42nd Street, New York

City. (Dr. Wilson has recently returned from England.)

February 9—"The Care of Soft Tissue Injuries" Forrest Young, M.D., assistant professor of surgery, University of Rochester School of Medicine and Dentistry, Strong Memorial Hospital, Rochester, New York.

February 16—"Epidemiology and Control of Syphilis"

James H. Lade, M.D., assistant director, Division of Syphilis Control, State Department of Health, Albany, New York.

At this meeting the motion picture film (technicolor and sound) entitled "Syphilis," which is provided by the State Department of Health, will be shown.

This instruction is a cooperative endeavor between the Medical Society of the State of New York and the New York State Department of Health.

Treatment of Common Diseases

A series of four lectures on "The Treatment of Common Diseases" were presented before the Madison County Medical Society during November and December. They were arranged by Dr. Clayton W. Greene of the University of Buffalo College of Medicine and took place in the Hotel Oneida, Oneida, at 8:30 P.M. The subjects and speakers were as follows:

November 24—"Evaluation of Common Drugs Used in General Practice," by A. H. Aaron, M.D., professor of clinical medicine, University of Buffalo School of Medicine.

December 1—"What Do We Know About

Vitamins?" by David K. Miller, M.D., professor of medicine, University of Buffalo School of Medicine.

December 8—"The Treatment of Burns," by J. Sutton Regan, M.D., assistant professor of surgery, University of Buffalo School of Medicine.

December 15—"Practical Application of Hormonal Therapy," by Clyde L. Randall, M.D., professor of gynecology, University of Buffalo School of Medicine.

THE NEW YORK ACADEMY OF MEDICINE ELECTS OFFICERS

The New York Academy of Medicine on December 3 elected the following officers:

Arthur F. Chace, M.D., president for a term of two years.

Cornelius P. Rhoads, M.D., vice-president for a term of three years.

Robert E. Pound, M.D., secretary for a term of three years.

Malcolm Goodridge, M.D., and Harold R. Mixsell, M.D., trustees for a term of five years.

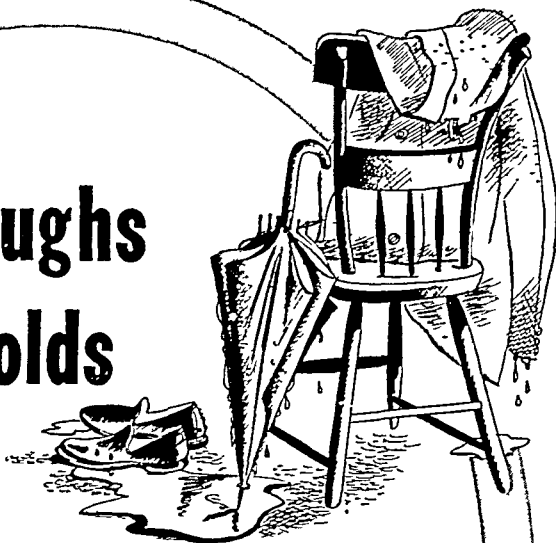
Kirby Dwight, M.D., trustee to fill unexpired term of Dr. Chace through 1945.

Edward F. Hartung, M.D., R. Townley Paton, M.D., and Philip Van Ingen, M.D., members of Committee on Library for a term of three years.

Ruth M. Bakwin, M.D., Thomas K. Davis, M.D., Locke L. Mackenzie, M.D., and Thomas G. Tickle, M.D., members of Committee on Admission for a term of three years.

Lewis B. Robinson, M.D., member of Committee on Admission to fill unexpired term of Dr. Scarff through 1943.

For Coughs due to Colds



CETRO-CIROSE*

Wyeth's
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THE PALATABLE SEDATIVE EXPECTORANT
PLEASANT • EFFECTIVE

Also serves as an excellent sugar-free vehicle when special cases require additional medication.

Dose (For adults, and children over 12) Two teaspoonfuls every half hour for four doses, then every three hours if needed.

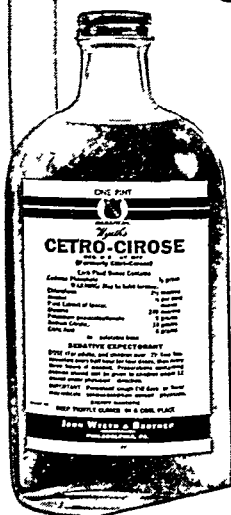
Each Fluid Ounce Contains

Codeine Phosphate	—	1/2 grain
Chloroform	—	2 minims
Alcohol	—	1 1/2 per cent
Fluid Extract of Ipecac	—	1 minim
Glycerin	—	240 minims
Potassium guaiacolsulfonate	—	8 grains
Sodium Citrate	—	18 grains
Citric Acid	—	6 grains

in a palatable base

*Cetro Cirose is a registered trademark of John Wyeth and Brother, Incorporated, for a palatable and well balanced preparation for the relief of coughs due to colds.

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Also Available
CETRO-CIROSE MODIFIED
(Without Codeine)
The same formula as Cetro Cirose except that codeine is omitted.

Federal Legislation

The following bulletin (No. 22) was issued on December 1, 1942, by the Bureau of Legal Medicine and Legislation of the American Medical Association.

Army Nurse Corps; Dietitians and Physical Therapy Aides in Army Medical Department

H.R. 7633 has passed the House of Representatives, increasing the pay and allowances of members of the Army Nurse Corps and providing for the inclusion in the Medical Department of the Army of such female dietetic and physical therapy personnel as the Secretary of War may consider necessary.

The bill provides that during the present war and for six months thereafter (1) the members of the Army Nurse Corps shall have relative rank and receive pay and allowances, including mileage and other travel allowances, as now or hereafter provided by law, for commissioned officers, without dependents, of the Regular Army in the sixth to the first pay periods, respectively; (2) there shall be included in the Medical Department of the Army such female dietetic and physical therapy personnel (exclusive of students and apprentices) as the Secretary of War may consider necessary, whose qualifications, duties, and assignments shall be in accordance with regulations to be prescribed by the Secretary, and who shall be appointed and, at his discretion be removed, by the Surgeon General, subject to the approval of the Secretary, such personnel having relative rank and receiving pay and allowances, including mileage and other travel allowances, as now or hereafter provided by law, for commissioned officers, without dependents, of the Regular Army in the third to the first pay periods, respectively.

The superintendent of the Army Nurse Corps will receive pay and allowances of the sixth pay period (\$333.33-\$400 base pay) and will have the relative rank of colonel; assistant superintendents or directors will receive pay and allowances of the fifth or fourth pay periods (\$250-\$350 base pay) and will have the relative rank of lieutenant-colonel or major, respectively; one chief dietitian to be designated as the Director of Dietitians and one chief physical therapy aide to be designated as the Director of Physical Therapy Aides will each have the relative rank of major and receive the pay and allowances of the third pay period (\$200-\$240 base pay); assistant superintendents and assistant directors, chief dietitians and chief physical therapy aides will also receive the pay and allowances of the third pay period and will have the relative rank of captain; chief nurses, head dietitians and head physical therapy aides will receive the pay and allowances of the second pay period (\$166.67-\$199.99 base pay) and will have the relative rank of first lieutenant; and head nurses, nurses, dietitians, and physical therapy aides will receive pay and allowances of the first pay period (\$150-\$180 base pay) and will have the relative rank of second lieutenant.

As indicated in its title, this bill generally will increase the base pay and allowances for members of the nurse corps. For instance, under the existing pay schedule a nurse with under three

years of service receives \$90 base pay. Under the pending bill, that nurse will receive \$150. A chief nurse at present with under three years of service receives \$140. Under the pending bill she will receive \$166.67. Similar increases are provided for in the other classifications except, apparently, in the case of assistant directors of nurses who, according to a schedule published in the Report of the House Committee on Military Affairs, now receive \$215 a month if they have served for only three years as assistant directors, while under the provisions of the pending bill they will receive \$200 a month base pay during that period.

With respect to female dietitians and female physical therapy aides, the Report of the House Committee on Military Affairs points out that they have been employed by the War Department in a strictly civilian capacity for many years with no authority or status in the Army. At the present time 591 dietitians are so employed and 386 physical therapy aides. It is estimated that by June 30, 1943, the services of 1,448 dietitians will be required and 1,386 physical therapy aides. Dietitians employed by the Medical Department are required, states the report, to be graduates of a recognized school, and to have majored in dietetics and nutrition, or to have received a bachelor's degree from a recognized college with a major in dietetics, food preparation, nutrition, and institutional management. Physical therapy aides are required to be graduates of a recognized school of physical therapy or to have completed a four-year course in physical education.

The Committee Report points out that with the establishment of Army hospitals in combat zones, and the assignment of dietitians and physical therapy aides to them, it will be essential that they be given military status. "In other times a theater-of-operations hospital," the Committee states, "was comparatively safe from attack or capture, but in the present war these civilians are more liable to become injured or to be taken prisoner and they should therefore have the same protection, pay and allowances, insurance, pension, and other gratuities as our nurses alongside whom they work in Army hospitals. It is not contemplated that women of other categories will be sent overseas for duty in Army hospitals."

Rear Admiral in Dental Corps of Navy

S. 2769 has been reported to the Senate, authorizing the rank of rear admiral in the Dental Corps of the United States Navy. According to the Report of the Senate Committee on Naval Affairs, this bill was sponsored by the American Dental Association. A representative of that Association appeared before the Committee in support of the bill, stating that the Army Dental Corps is allowed one brigadier general as assistant to the Surgeon General of the Army, that in

(Continued on page 80)

INCREASED

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More
VITAMIN B₂

More
NIACINAMIDE

GREATER ECONOMY

The patient for whom Betaplexin prescribed now receives a substantially greater dosage of the various factors which comprise the vitamin B complex.

The potency of the declared factors in the various forms of Betaplexin is follows:

	ELIXIR	SYRUP	TABLETS OR CAPSUL
	Each Teaspoonful (5 cc.)	Each Teaspoonful (5 cc.)	Each Tablet or Capsule
VITAMIN B ₁	3 mg. (1000 U.S.P. units)	3 mg. (1000 U.S.P. units)	1.5 mg. (500 U.S.P. units)
VITAMIN B ₂	1 mg.	1 mg.	0.5 mg.
VITAMIN B ₆	0.3 mg.	0.675 mg.	0.1 mg.
NIACINAMIDE	10 mg.	10 mg.	5 mg.
PANTOTHENIC ACID	0.75 mg.	1.8 mg.	0.275 mg.

All forms also contain other factors including biotin, choline, inositol and para-aminobenzoic acid.

HOW SUPPLIED

Betaplexin Elixir and Syrup: Bottles of 4 and 16 fluidounces and 1 gallon.

Betaplexin Tablets and Capsules: Bottles of 50 and 500.

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WINTHROP CHEMICAL COMPANY, INC.

Pharmaceuticals of merit for the physician

NEW YORK, N. Y.

WINDSOR, ON



[Continued from page 78]

the opinion of the Association the Army Medical Corps has benefited by having one officer of this rank and that it was rather humiliating to officers of the Dental Corps of the Navy to feel that they are entitled to reach only the rank of captain after many years of service, while officers of other staff corps are able to attain the rank of rear admiral.

The Navy Department made an adverse report on the bill, stating in part as follows:

"The Dental Corps of the Navy is a division of the Medical Department and the affairs of the Dental Corps are under the general direction of the Chief of the Bureau of Medicine and Surgery. In other bureaus of the Department there are similar divisions corresponding to that of the Dental Corps. There is no provision whereby these divisions should be headed by an officer of the rank of rear admiral.

"The Navy Department considers that the establishment of the rank of rear admiral in the Dental Corps of the Navy as contemplated by the proposed legislation would serve no useful purpose, and therefore accordingly recommends against its enactment."

The Committee Report points out that the present authorized strength of the Dental Corps of the Regular Navy is 527. As of September 1, 1942, there were 412 regular officers, 1,109 Naval Reserve officers, and 7 retired officers of the Dental Corps on active duty, making a total on that date of 1,528 officers of the Dental Corps. The pending bill, the Committee reports, does not change the relation of the Dental Corps to the Medical Department of the Navy; it merely gives dental officers an opportunity for promotion to the rank of rear admiral. The Committee felt that the passage of this bill would constitute a recognition of the important contribution made by dental officers of the Navy.

Protection of Blind Persons under Civil Service

S. 2902, introduced by Senator Davis of Pennsylvania, November 20, and pending in the Senate Committee on Civil Service. A bill to prevent discrimination against blind persons and persons with impaired visual acuity in the administration of the civil service laws and rules.

Comment.—This bill proposes to amend the act to regulate and improve the civil service of the United States by providing that no person shall be discriminated against in any case because of

his or her blindness or impaired visual acuity, in examination, appointment, reappointment, reinstatement, reemployment, promotion, transfer, retransfer, demotion, removal, or retirement.

Osteopaths as Commissioned Medical Officers in the Navy

H.R. 7672 has been signed by the President, making supplemental appropriations for the national defense for the fiscal year ending June 30, 1943, and for other purposes (Public Law No. 763). At the time this bill was before the Senate for consideration an amendment was submitted by Senator Downey, of California, providing that the appropriations for the Navy Department shall be available "for the pay of commissioned officers who are graduates of reputable schools of osteopathy." The following discussion on the amendment ensued:

"MR. DOWNEY: Mr. President, I wish to offer an amendment to the pending bill which I have discussed with the Senator who is sponsoring the measure (Senator McKellar of Tennessee). The amendment is on page 8, line 17, after the word 'law,' to add the words 'for the pay of commissioned medical officers who are graduates of reputable schools of osteopathy.'

"I may say, in relation to the amendment, that there is at the present time no provision in the law by which payment can be made by the Navy to commissioned medical officers who are graduates of schools of osteopathy. The Navy is of the opinion, I understand, that some time during this year it may desire to commission officers who are graduates of schools of osteopathy. The provision is merely permissive, and in case the Navy should desire to make such appointments, this amendment would permit that to be done.

"Mr. President, I understand the distinguished Senator from Tennessee (Mr. McKellar) is willing to take the amendment to conference.

"MR. MCKELLAR: Yes. I have no objection to doing so.

"THE VICE-PRESIDENT: The question is on agreeing to the amendment of the Senator from California (Mr. Downey).

"The amendment was agreed to."

The conferees permitted the amendment to remain in the bill.

J. W. HOLLOWAY, JR., *Director*

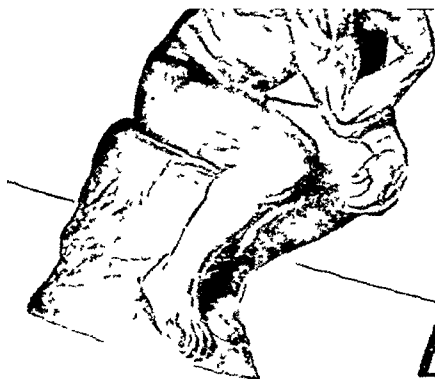
UROLOGY AWARD

The American Urological Association offers an annual award "not to exceed \$500" for an essay (or essays) on the result of some specific clinical or laboratory research in urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in

such specific practice for not more than five years.

The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, May 31–June 3, 1943, Hotel Jefferson, St. Louis, Missouri.

Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before March 1, 1943.



Think of Zymenol

Brewer's Yeast Emulsion

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Zymenol's economical TEASPOON dose contains less than 2 cc mineral oil which avoids leakage and cannot affect digestion or vitamin absorption.

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Say you saw it in the NEW YORK STATE JOURNAL OF MEDICINE

Woman's Auxiliary

To the Medical Society of the State of New York

THE year 1942 has drawn to a close and we hail the New Year 1943.

May brightly shining candles
Light your heart with cheer,
And symbolize the gladness
That's wished you through the year.

Our president-elect sends New Year's greetings to all:

We as members of the Woman's Auxiliary to the Medical Society of the State of New York are beneficiaries of a way of life that offers wider opportunities than are found in any other association of women. We have a corresponding obligation to use our energies with the utmost intelligence and devotion to preserve that way of life when it is threatened. This is our "Challenge for the New Year."

Remember that our duty is of huge dimensions. Because of the present tumultuous struggle, our doctors have been called upon to perform a gigantic task—to preserve the health of the

civilian population. And our third obligation is to uphold the ethical and educational standards of the medical profession.

We, the wives of doctors, cannot relieve the sufferings of the armed forces, but we can remember the wives of the men who have left to care for our fighting men. These women need our support. Do not forsake them.

We can assist in keeping the health of the civilians at the high level it was before this conflict began by giving watchful attention to the health and happiness of others. We can teach the public the benefits of proper nutrition and preventive medicine by giving health forums and nutrition exhibits, with lectures on nutrition.

We must sustain the prestige of the medical profession by keeping ourselves informed and educated. Read medical literature, study medical legislation, and be alert to all medical problems. We shall not fail.

This is my sincere plea to all my fellow members for this year of 1943.

MRS. F. LESLIE SULLIVAN, *President-Elect*

County News

Albany. The November auxiliary meeting was held in the Canary Room, DeWitt Clinton Hotel, in Albany. Mrs. John B. Horner presided and Mrs. Thomas Fitzgerald gave a talk on the work of the War Council. A membership tea was held, at which six new members were welcomed. Fifty old members and ten guests were present. The annual card party, which is held each fall, and which was under the chairmanship of Mrs. Emerson C. Kelly and her committee, proved very successful—\$200 was raised. A portion of this sum was donated to the Hospital for Incurables, in Albany, for two special-type beds needed there.

Each member of the auxiliary contributes something to the selling of War Stamps and Bonds.

Nassau. Dr. Earle G. Brown and Dr. Roland T. Jeffrey were guest speakers at the auxiliary meeting. They discussed "National Defense," stressing what we, as doctors' wives, can do to best help our country in this great crisis. Mrs. Arthur D. Jacques, president, presided at the meeting. Mrs. Vincent Webb and Mrs. Ray M. Bowles acted as hostesses for the social hour.

Queens. Mrs. William Godfrey presided at the annual meeting held at the Medical Society Building in Forest Hills. Mrs. James Robbins was elected president and Mrs. Harry Meucker, president-elect. The new officers were installed at a luncheon held in December. Mrs. Thomas D'Angelo, defense chairman, sent holiday greetings to all members of the Medical Society of the County of Queens who are in the service.

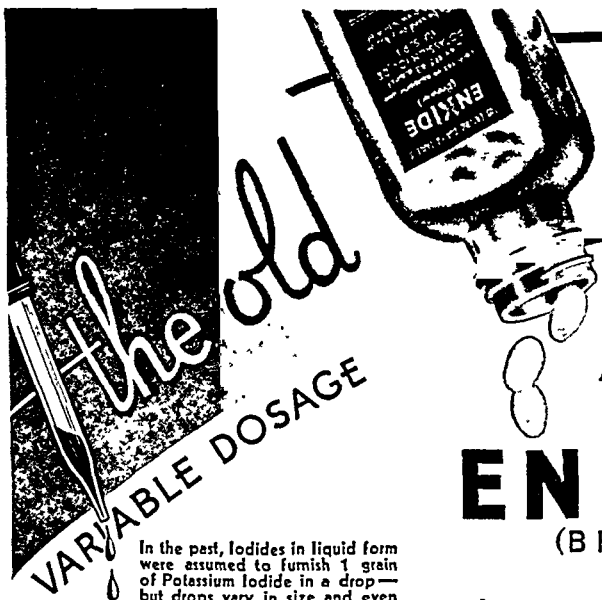
Saratoga. Mrs. James F. Roohan was re-elected president of the Saratoga County Medical Society's auxiliary at the annual meeting. Much patriotic work was reported. Dr. William H. Ordway thanked the group for serving coffee and sandwiches to blood donors. Mrs. Fred J. Pratt,

Mrs. Arthur J. Leonard, and Mrs. Malcolm J. Magovern were the committee for such recent service. Machine-sewing is to be started for the hospital, and Mrs. H. Dunham Hunt has taken over the work and has asked for more blankets, either old or new, to be used in the air raid shelters. The names of the owners are to be attached to the blankets so that they can be returned later on. A gift of \$4.24 was received from the school children of Mechanicville, Grade 8A3, for the air raid shelter equipment. The auxiliary is outfitting these shelters.

A Christmas party was held at the Nurses Lounge in Cramer House.

Suffolk. The second district branch meeting was held in Garden City, with Suffolk County auxiliary as the hostess. Mrs. J. Emerson Noll State president, was guest of honor. A delightful luncheon was served. Members from Kings, Queens, and Nassau were present. Dr. Cottis, president of the State Medical Society, spoke at the luncheon. Dr. Joseph Lawrence spoke on "Legislation." The general chairman was Mrs. George P. Bergmann, president of Suffolk County auxiliary. A needle-point footstool was given to the auxiliary, on which \$100 was realized. This sum is to be used for charity.

Schenectady. The November meeting of the auxiliary was held at the Hotel Van Curler, with Mr. H. A. Rosen, of the Medical and Surgical Relief Committee of America, as guest speaker. Donations were received to fill Christmas stockings that were distributed to the ward patients in the Ellis Hospital on Christmas Day. Rapid progress is being made in the knitting of two afghans by the committee members. These, when finished, are to be presented to the Red Cross. A membership tea was held in December, at the home of Mrs. William Gazeley.



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• Principles of Extraperitoneal Caesarean Section

This book gives in full detail the techniques of all types of extraperitoneal caesarean section. Clear descriptions of the anatomic relationships between fascia transversalis, peritoneum and bladder in the various stages of pregnancy are presented. By J.V. Ricci, M.D., N.Y. Med. College and J.P. Marr, M.D., Woman's Hosp., State of N.Y. 47 Illus. 224 Pages. \$4.50 (1942)

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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

RECEIVED

Gas Warfare. The Chemical Weapon, Its Use, and Protection Against It. By Colonel Alden H. Waite. Octavo of 327 pages, illustrated. New York, Duell, Sloan and Pearce, 1942. Cloth, \$2.75.

Ophthalmology and Otolaryngology. Prepared and Edited by the Subcommittees on Ophthalmology and Otolaryngology of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. Octavo of 331 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$4.00.

Abdominal and Genito-Urinary Injuries. Prepared under the Auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. Octavo of 243 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$3.00.

Röntgen Treatment of Diseases of the Nervous System. By Cornelius G. Dyke, M.D., and Leo M. Davidoff, M.D. Octavo of 198 pages, illustrated. Philadelphia, Lea & Febiger, 1942. Cloth, \$3.25.

The Medical Clinics of North America. Volume 26, No. 5. September, 1942. Octavo. Illustrated. Philadelphia, W. B. Saunders Company, 1942. Published Bi-Monthly (six numbers a year). Cloth, \$16 net; Paper, \$12 net.

Problems of Ageing. Biological and Medical Aspects. Second edition. Edited by E. V. Cowdry. Octavo of 936 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$10.

Medical Parasitology. By James T. Culbertson. Octavo of 285 pages, illustrated. New York, Columbia University Press, 1942. Cloth, \$4.25.

Dr. Colwell's Daily Log for Physicians. A Brief, Simple Accurate Financial Record for the Physician's Desk. Quarto. Champaign, Illinois, Colwell Publishing Company, 1943. Cloth.

Referred Pain: A New Hypothesis. By G. W. Theobald, M.D. Octavo of 40 pages, illustrated. Colombo, Ceylon, The Times of Ceylon Co., 1941. Paper.

Group Differences in Urban Fertility. A Study Derived from the National Health Survey. By Clyde V. Kiser. Octavo of 284 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$2.50.

Recent Advances in Obstetrics and Gynecology. By Aleck W. Bourne, M.A., and Leslie H. Williams, M.D. Fifth edition. Octavo of 363 pages, illustrated. Philadelphia, The Blakiston Company, 1942. Cloth, \$5.50.

Sulfanilamide and Related Compounds in General Practice. By Wesley W. Spink, M.D. Octavo of 374 pages. Chicago, The Year Book Publishers, 1942. Cloth, \$3.00.

Blood Substitutes and Blood Transfusion. Edited by Stuart Mudd, M.D., and William Thalhimer, M.D. Octavo of 407 pages, illustrated. Springfield, Charles C. Thomas, 1942. Cloth, \$5.00.

The Principles and Practice of Medicine. Originally written by Sir William Osler. Designed for the Use of Practitioners and Students of Medicine. By Henry A. Christian, M.D. Fourteenth edition. Octavo of 1,475 pages. New York, D. Appleton-Century Company, 1942. Cloth, \$9.50.

A Textbook of the Practice of Medicine. By Various Authors, Edited by Frederick W. Price, M.D. Sixth edition. Octavo of 2,032 pages. New York, Oxford University Press, 1941. Cloth.

Changes in the Knee Joint at Various Ages. With Particular Reference to the Nature and Development of Degenerative Joint Disease. By Granville A. Bennett, M.D., Hans Waite, M.D., and Walter Bauer, M.D. Quarto of 97 pages, with 31 plates. New York, The Commonwealth Fund, 1942. Cloth, \$2.50.

Diseases of the Liver, Gallbladder and Bile Ducts. By S. S. Lichtman, M.D. Octavo of 906 pages, illustrated. Philadelphia, Lea & Febiger, 1942. Cloth, \$11.

The Essentials of Emergency Treatment. Octavo of 144 pages. Hartford, 54 Church Street, Connecticut State Medical Journal, 1942. Cloth, \$2.00.

Surgical Pathology. By William Boyd, M.D. Fifth edition. Octavo of 843 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$10.

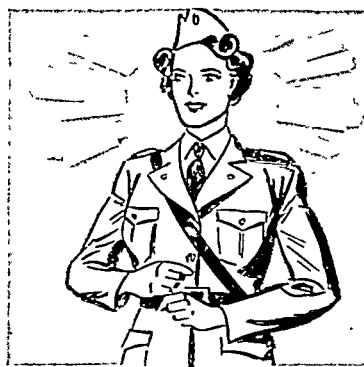
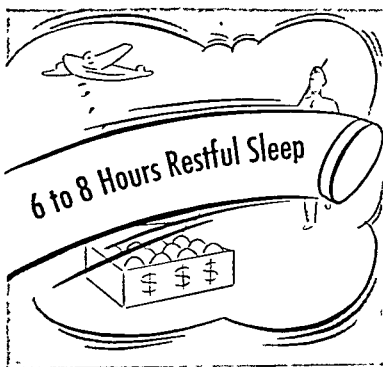
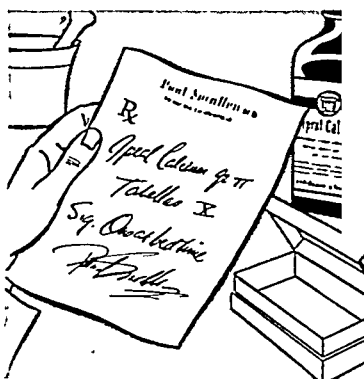
Manual of Dermatology. Issued under the Auspices of the Committee on Medicine of the Division of Medical Sciences of the National Research Council. By Donald M. Pillsbury, M.D., Marion B. Sulzberger, M.D., and Clarence S. Livingood, M.D. Octavo of 421 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$2.00.

Constitution and Disease. Applied Constitutional Pathology. By Julius Bauer, M.D. Octavo of 208 pages. New York, Grune & Stratton, 1942. Cloth, \$3.50.

Nasal Medication: A Practical Guide. By Noah D. Fabricant, M.D. Octavo of 122 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$2.50.

Animals Are My Hobby. By Gertrude Davies Lintz. Octavo of 301 pages, illustrated. New York, Robert M. McBride & Company, 1942. Cloth.

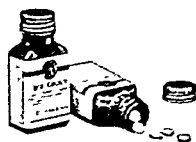
Fundamentals of Psychiatry. By Edward A. Strecker, M.D. Duodecimo of 201 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1942. Cloth, \$3.00.



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- Agatston, H J
28 E 95 St, N.Y.C.
- Aiello R G
151 Somers St Brooklyn N Y
- Alden, R L
131 Fulton St, Hempstead, N Y
- Alpin, A
1035 Grand Concourse, Bronx, N Y
- Altieri, A J (Lt)
214 Thompson St, McComb Miss
- Altman, M. A
864-60 St, Brooklyn, N Y
- Annunziata, A J (Capt)
714 Eng Ry Opn Bn, Camp Claiborne, La
- Aquilino, A U
309 Butternut St, Syracuse N Y
- Argentieri, D. D
416 Bainbridge St, Brooklyn N Y
- Arida H. K.
517 Ocean Ave, Brooklyn N Y
- Arnone, P R
1035-44 St, Brooklyn, N Y
- Aronowitz I (Capt)
Station Hosp, Fort Dix N J
- Avitable, A R
232-76 St, Brooklyn, N Y
- Ayer, W D
608 E Genesee St, Syracuse N Y
- B**
- Bacile V A
73 Mansion St, Poughkeepsie N Y
- Bader, E (Lt)
316 F A Bn, 81 Div, Camp Rucker, Ala
- Baker G A
85 Northland Ave Buffalo, N Y
- Baker, T
Memorial Hosp, Niagara Falls, N Y
- Balsam F J
101 Woodruff Ave Brooklyn N Y
- Bandiero F
181 N 6 St, Brooklyn N Y
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635 W 165 St, N.Y.C
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28 Sterling St, Wharton N J
- Bartholomew, H A (Lt Com)
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- Batten, D H (Capt)
79 Gen Hosp, Camp White Ore
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11 Cannon St, Poughkeepsie N Y
- Bauer, D W
1012 Ocean Ave Brooklyn N Y
- Behnkoff, J
1319 Dean St, Brooklyn, N Y
- Belkowitz, S
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- Bellafore, V
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901 Lexington Ave, N Y C
- Benjamin, B
845 Park Pl Brooklyn, N Y
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- Bennett G L
461 W 43 St, N Y C
- Benson M
230 Central Pk W, N Y C
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- Berger, M
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- Berman, L G
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- Biondo T
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- Birkel, P F
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1506 Ocean Ave, Brooklyn N Y
- Blecher, I E
1320 46 St, Brooklyn N Y
- Blinkoff J J
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- Bloom J
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30 72 30 St, Astoria N Y
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110 Post Ave, N Y C
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298 Niagara St, Buffalo N Y
- Bracco D J
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Hobart N Y
- Brown, H R
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- Carter, C E
Grassy Hill Rd, Orange Conn
- Carvo S P
6901-11 Ave, Brooklyn, N Y
- Cavaliere J F
8430 17 Ave, Brooklyn, N Y
- Chant R A
135 Eastern Pkway, Brooklyn, N Y
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2 Bn 64 Med Regt, Camp Young Calif
- Chojnacki, L A
R F D J, Lackawanna N Y
- Climi J L
132 Avenue U, Brooklyn, N Y
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661 W 180 St, N Y C
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"JOY RIDING" IS OUT

"Joy riding" on railroad trains is now as definitely taboo and unpatriotic as pointless driving of automobiles on the streets and highways. It is difficult for most of us to conceive that anyone ever traveled on the railroads for a "joy ride," not at least since a railroad train was a novelty. Yet, we are being admonished against non-essential travel on the railroads of our country.

What constitutes nonessential travel? No one seems to have defined it satisfactorily as yet. The only answer appears to be "don't—unless you have to." And that raises the point—who does? No one takes a train unless it is the best and only mode of transportation.

But the problems of the railroads are mounting. John J. Pelley, president of the Association of American Railroads, recently gave a statement of the position of the railroads which may give some idea why reservations for railway travel are now so difficult to arrange.

There are approximately 6,800 Pullman sleeping cars and 17,500 passenger day coaches in service on American railroads, and for the duration of this war that's about all there will be.

About 40 per cent of the sleeping cars and 15 per cent of the passenger day coaches are continuously engaged in moving troops, and the armed forces have first call on all the rest.

Besides the special-train and special-car movement of soldiers, sailors, and marines, great numbers of individual service men are traveling either under orders or on furlough and are using regular scheduled trains and cars. On top of that, because of the rubber and gasoline

restrictions, the railroads have been called upon to absorb a considerable percentage of the traffic which formerly moved by highway.

It all adds up to a tremendous increase in railroad passengers—almost double what it was two years ago. Handling the additional load at a time when other war requirements have made it impossible for the railroad to get additional equipment to help carry the added load means that trains are overloaded especially on week end and at holiday times, and train schedules are disrupted. Railroad stations are overtaxed and decent service is impossible on some days and at certain hours.

Much of the civilian travel is on business directly or indirectly connected to the prosecution of the war. Much of it is about imperative personal affairs. Much of it is part of the proper recreation and relaxation which the people of the nation must have if the war effort is to progress as it should. But much of it, also, is unnecessary, and if need be can be dispensed with without undue hardship.

Each traveler knows what his own mission is and should be able to exercise his own discretion as to the necessity or importance of the trip. Certainly the railroad cannot determine who is and who is not entitled to use its facilities, and in a free country has not the right to bar anyone who is willing to pay for the service rendered.

Which still leaves unanswered, "who wants to ride on a train for fun—or to kill time?"

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COLOR AND EMOTIONS

Under "Recent Items" in the December issue of *Main Currents in Modern Thought*, the following abstract on color and emotions deserves attention.

"The many curious associations and impressions gained by people when the major hues of the spectrum are presented to view were a subject of study made recently by the Color Research Laboratory of the Eagle Printing Ink Corporation.

"Red, as a color, seems hot, dry and opaque in quality, this study showed. Being sharply focused by the eye it suggests angular forms. Orange is less earthly than red. It is warm rather than hot, but it is also dry. Its appearance is glowing and somewhat metallic.

"Yellow is also warm and dry, and also very luminous. Where red is bulky and heavy, yellow is more sunny and spatial. Being the color of highest visibility in the spectrum, it is sharp and precise in form. Green is cool and moist in quality. Blue is cold, wet and suggestive of things transparent—sky and water. Because

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blue is a retiring color and tends to blur on the retina, it suggests round and soft rather than angular forms.

"Purple is cool, refined and extremely atmospheric. It is remindful of shadow and distance. While these generalizations are frankly emotional, they seem to find confirmation in the associations of most people.

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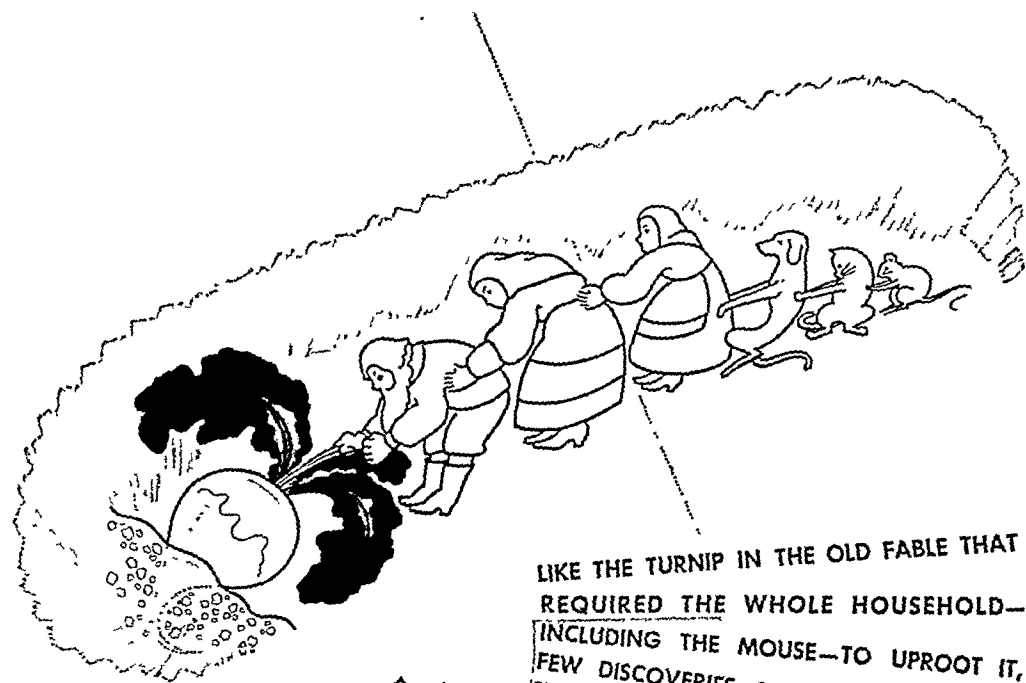
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of the Kenny Technics." The speaker will be Philip M. Stimson, M.D., associate professor of clinical pediatrics, Cornell University Medical College. This lecture is a cooperative endeavor between the Medical Society of the State of New York and the New York State Department of Health.



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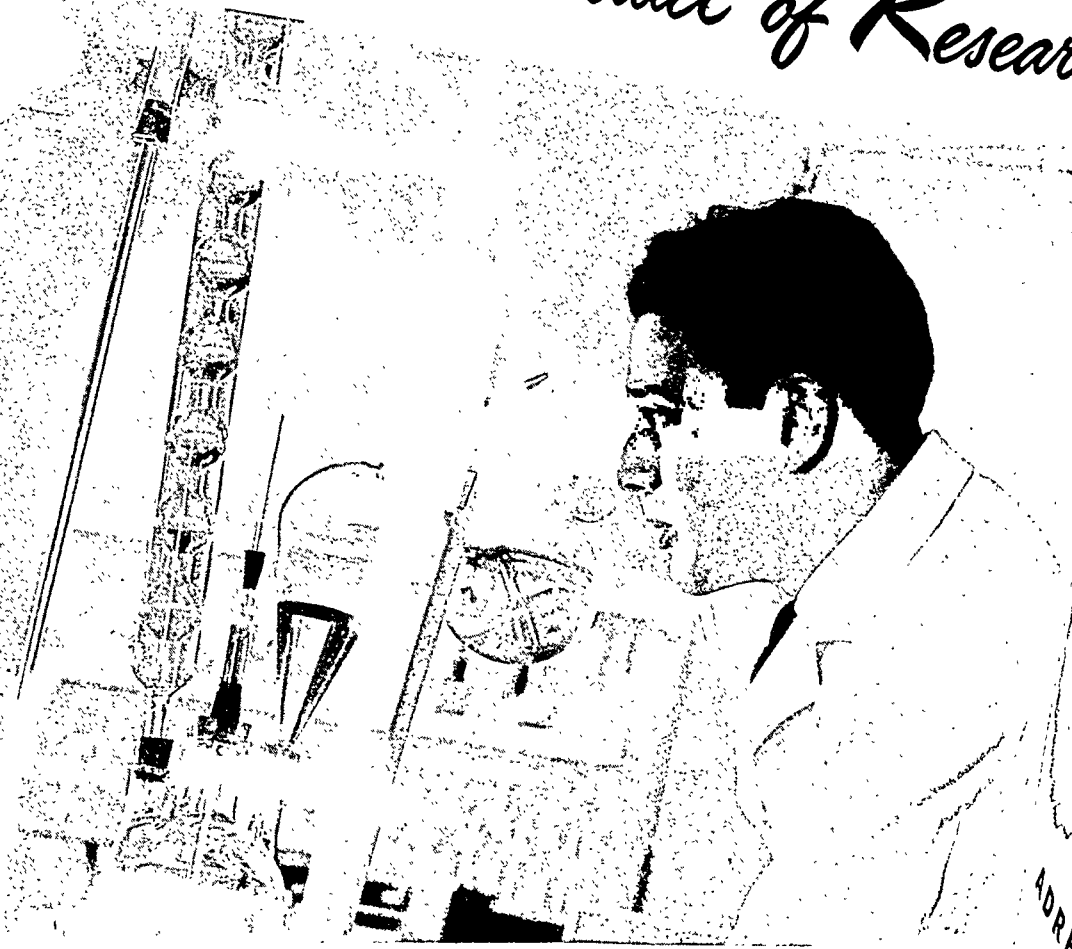
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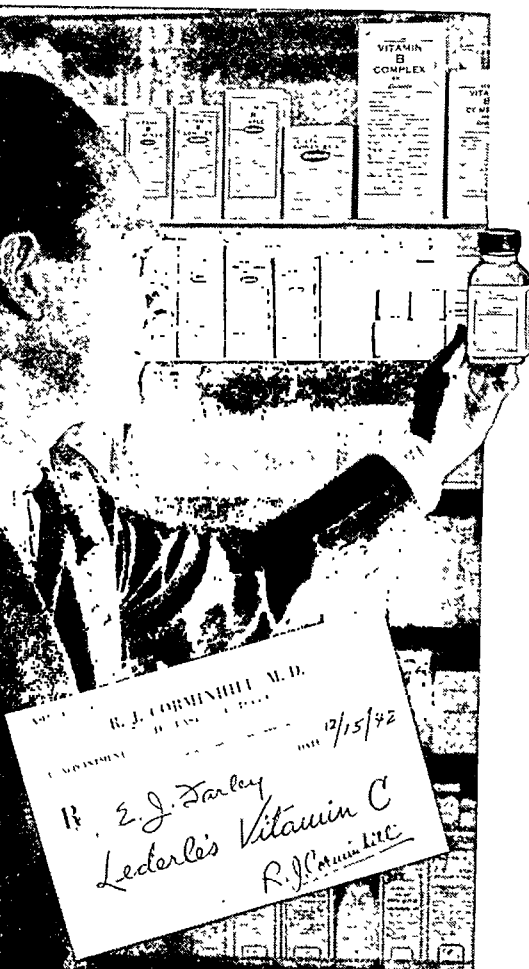
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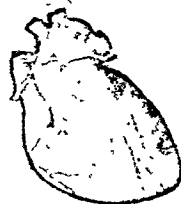
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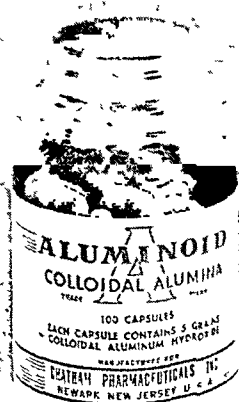
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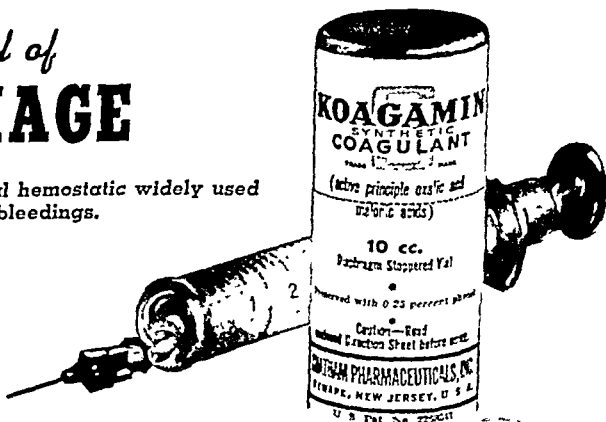
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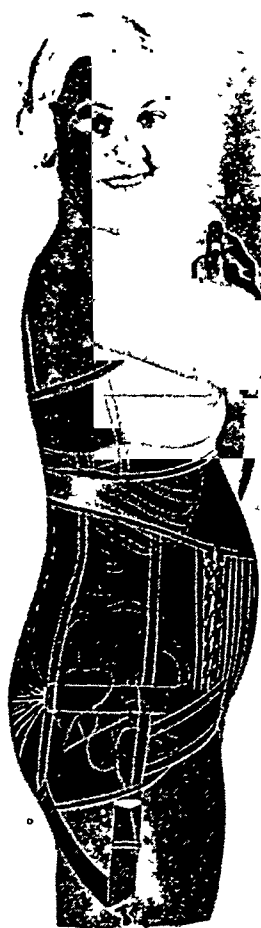
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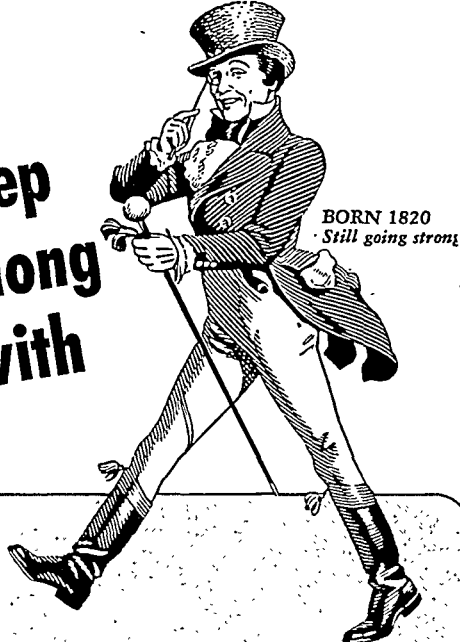
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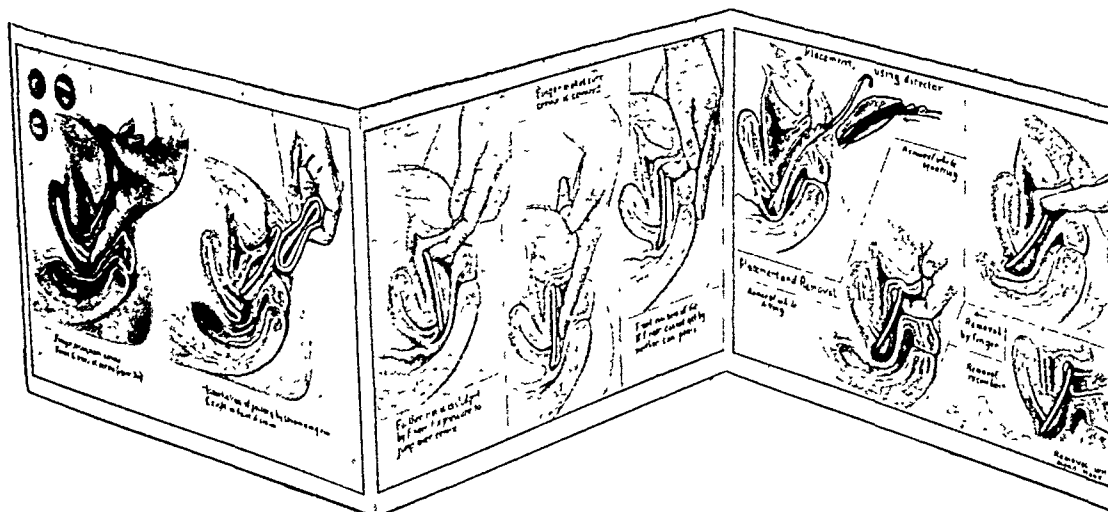
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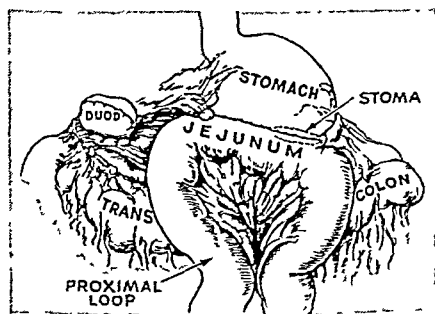
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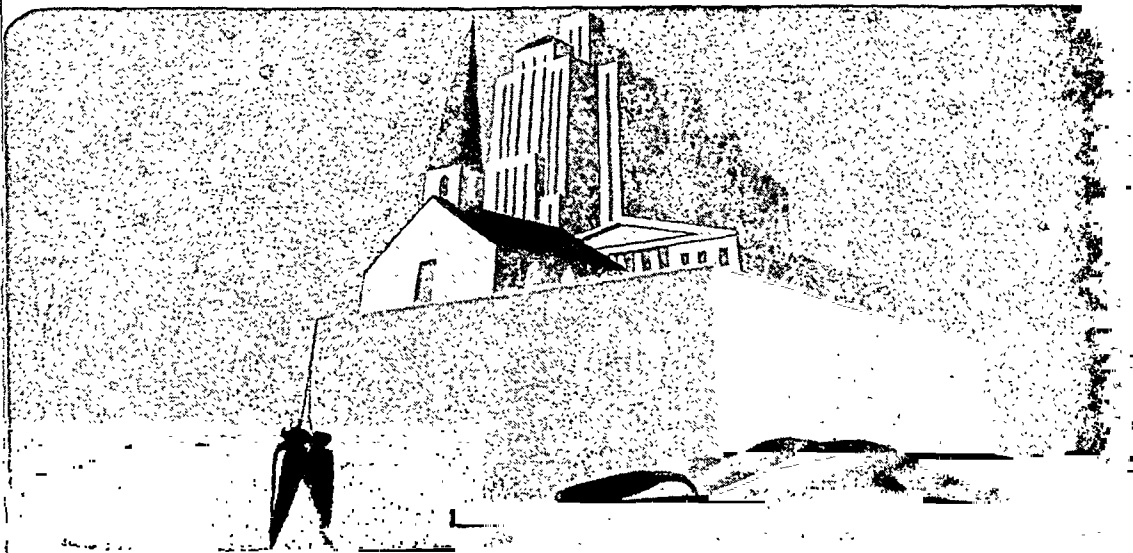
1. Fauley, G. B.; Freeman, S.; Iry, A. C.; Atkinson, A. J.; and Wigodsky, H. S.; Aluminum Phosphate in the Therapy of Peptic Ulcer, Arch. Int. Med. 67: 563-578 (March) 1941.
2. Marshall, S. F., and Desirne, J. W. Jr.; Gastrojejunal Ulcer, S. Clin. North America, 743-761 (June) 1941.

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VOLUME 43

JANUARY 15, 1943

NUMBER 2

Editorial

War and Social Reform, II*

"Society is an organism subject to all the laws of evolution," said Dr. G. W. Cottis,¹ President of the Medical Society of the State of New York, "and medicine is an organ of vital importance in that organism. There is of necessity a constant interrelationship between the two, and we cannot appraise our situation apart from that of society as a whole." For this reason, we are convinced that at this time editorial emphasis upon social, economic, and political proposals for change is imperative. We have had so much scientific and technical progress in medicine and other fields in so short a time that the great problem now is how to use it in the most efficient and equitable manner. It is by no means a simple problem or one which lends itself readily to scientific analysis, for it involves people, their ideas, their wants, their laws, their industry and agriculture, as well as their ills, and their aspirations.

"Where there is no vision, the people perish," says the Old Testament.² At present, human beings aspire to security, personal and social, economic and otherwise. Well, human beings have always done that, and have, in addition, gone a long way on the road to its attainment.

"Under the smoke and fire of battles we might see all the people of the earth," continues Dr. Cottis, "moving like a tidal wave in one direction. That direction is toward a new form of society

in which independence is replaced by dependence, and freedom traded for security. The leaders who promise these are the ones the people follow. The security they seek and demand is security against want, hardship, and illness. That is the negative way of saying that they demand assurance of shelter, food, clothing, recreation, and medical care without much regard to their ability to earn them."¹

The "Beveridge Report" seems, on examination, not to be quite the "revolutionary" document which was anticipated.³ At Oxford Town Hall, its author is reported to have said on December 6, in part:

"If we have mass unemployment we may not be able to carry out the proposals of my report. . . . I simply won't believe it is impossible to abolish mass unemployment, yet I do not know how it is to be done and do not even know whether anyone else does."

Fair enough; neither do we.

"The Australian Labor Government's plan for social security after the war is similar to Sir William Beveridge's, but is much more comprehensive. It is estimated it will cost £50,000,000 to £60,000,000 yearly, according to the range of benefits finally included, and will provide maternity allowance, child endowment, widows' pensions, health and unemployment insurance, free hospital and medical services irrespective of income, old-age pensions without a means test much larger than those now paid, and a living allowance on a family basis probably

* This is the second editorial of a series.

equal to the present basic wage of about £4 10s. weekly during unemployment.

"A government spokesman said the aim would be to provide security from the cradle to the grave.

"The health plan will involve the zoning of Australia into medical districts and the employment of 2,000 doctors and thousands of nurses and salaried staffs of hospitals and health centers. It is suggested that doctors demobilized from the fighting forces might be absorbed into this scheme.

"The Commonwealth may take over public hospitals, now a responsibility of the States. Doctors' salaries would range from £800 for junior general practitioners to £1,650 for senior physicians and surgeons. There would be more than 450 new one-man health centers throughout the Commonwealth.

"Cities also would be zoned, Sydney having thirty-five health centers; Melbourne, 25. Infant health centers and convalescent and rest centers would also form part of the scheme."

Just how all this is to be accomplished in face of the mass unemployment which, if history repeats itself, is to be anticipated after the war we haven't an idea.

We do know that here in the State of New York,⁵ the public medical-care program laid down by practical, hard-headed representatives of the Medical Society of the State of New York and the State Department of Social Welfare* in some respects right now goes farther than the projected medical service plans of either Sir William Beveridge or the Australian Labor Government. To quote Lee C. Dowling, Deputy Commissioner for Public Assistance of the State Department of Social Welfare, in part: "That this was done without regimented socialization of private medicine, without injury to the doctor-patient relationship, without adversely affecting the economics of private practice—and with a measurable improvement in the quality, quantity, and efficiency of medical services—is a singular achievement. . . . Further, . . . this plan comprises a partnership of government and the medical profession functioning cooperatively in the interests of the public health and welfare. . . ."

Medical care⁶ is construed to include necessary preventive, diagnostic, cor-

rective, and curative services, and supplies essential thereto, provided by qualified medical and related personnel for conditions in a person that cause acute suffering, endanger life, result in illness or infirmity, interfere with his capacity for normal activities, or threaten some significant handicap. In the provision of such medical care, full and proper use shall be made of existing public and private medical and health services and facilities.

The medical care plan provides for (a) local medical direction and administration for a clearly defined local program, (b) medical and social coordination, with suitable medical and fiscal record-keeping, and (c) integration with community medical and health resources. The pattern for providing the items of medical care listed below may include any combination of the following:

- (a) Free choice of physician and fee-for-service system
- (b) A salaried system rotating or fixed according to circumstances
- (c) A rotating panel system
- (d) Specialists' services and hospital care according to approved local practices

The local plan in New York State may provide for all forms of medical care including—*regardless of the extent of State participation*—many or all of the following:

Acute illness, home or office
Ambulance service
Boarding homes for invalids
Chronic illness, home, office, etc.
Clinic care, by referral
Consultant services
Dental care, including
 Prophylaxis
 Treatment
 Fillings
 Extractions
 Dental surgery
 Dentures
Drugs, serums, etc.
Eye examinations
Eyeglasses and glass eyes
Fractures
Hospital care
Laboratory services

Major surgery, home or hospital
 Medical services in hospital
 Minor surgery
 Nursing care, including
 Visiting nurse, per visit
 Registered nurse, per day
 Practical nurse, per day
 Home medical aids
 Nursing-home care
 Obstetrics, home or hospital
 Physiotherapy
 Pneumonia treatment
 Preventive services, by referral
 Prosthetic or surgical appliances
 Radium treatment
 Sickroom supplies
 Specialist services
 Tuberculosis treatment, home
 Venereal disease treatment
 X-ray diagnosis
 X-ray treatment

We recommend to all who are interested in the medical care aspects of social security the method of procedure followed in the State of New York⁵ so clearly set forth by Mr. Dowling; namely,

building from the ground up, not from the top down. The method has this advantage: it works with a minimum of bureaucratic control; it is founded on well-understood principles; it works in times of peace; it does not require a state of war to assure its continuance; it operates within the framework of reality as a partnership; it "indicates that the medical profession can work with government agencies without surrendering its own freedom of action or lowering its standards of service. . . . It may avert the evils of State Medicine."⁷

1. First District Branch Meeting, Oct. 7, 1942.
2. Proverbs 9: 18.
3. New York State J. Med. 43: No. 1: 25 (Jan. 1) 1943.
4. New York Times, Dec. 7, 1942.
5. New York State J. Med. 42: No. 9: 904 ff. (May 1) 1942.
6. Under Section 184, Social Welfare Law, State of New York.
7. New York State J. Med. 42: No. 22: 2100 (Nov. 15) 1942.

Medical Licensure

The Federation of State Medical Licensing Boards has upon its shoulders at the present time a great responsibility.

The current wartime problem of the redistribution of physicians brings up for study the whole structure of medical licensure and education. "Some thousands of physicians," says the *J.A.M.A.*,¹ "have already indicated to the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians their willingness to be 'dislocated' for the duration of the emergency to meet the needs of the civilian population." A survey of the laws regulating the licensing of physicians in various states has been undertaken by the Federation with a view to the adoption at the earliest possible time of new laws or modifications of existing regulations with the purpose of meet-

ing the speeded process of medical education.

"Clearly," says the *J.A.M.A.*, "the processes of licensure must be geared to meet this emergency." Administratively, much can be done to meet the situation. It has been suggested that the granting of temporary permits to practice on an interstate basis for the period of the emergency might be a means of meeting one of the most crucial problems; namely, the relocation of physicians to meet industrial and civilian needs. It has been reported that the Attorney General of the United States has suggested that licensure laws might be invalidated for the period of the emergency, also that state legislatures might immediately pass enabling legislation for such invalidation. Since the legislatures of forty-four states will meet in 1943, additional legislation might well be considered at this time.

A word of caution seems necessary.

¹ *J.A.M.A.* 120: No. 12: 925 (Nov. 21) 1942.

At this writing² the Army and Navy have just announced their plans to mobilize 200 to 300 colleges and universities for training men in the armed forces. The significance of this procedure on American liberal education will undoubtedly be profound, and its consequences with respect to medical education will be disturbing, to say the least. No one expects that we shall come through this war without scars. But the standards of premedical and medical education and practice cannot be too greatly modified without, in our opinion, appalling disservice to the living and to the national war effort. Unless one visualizes medicine as merely a technical study in the delay of death and not as a contributor to the art of living, standards of practice and of learning do matter.

"Several efforts," says the J.A.M.A.,¹ "have been attempted to break down the standards of medical education and medical care and to bring into the practice of medicine half-educated physicians. . . ." We do not believe that the good common sense of responsible administrators backed up by the sound horse sense of the American people whose very lives and health are at stake would tolerate for long any such efforts at a time when our national existence is under serious extraneous threat. We could not conceive of any subtler sort of sabotage of our domestic health and morale. It is, of course, possible that certain minority groups may attempt to use the dislocations and changes which are the inevitable concomitants and consequences of a total war for their own ends. In so far as these ends are not in the actual public interest, we do not believe they will prevail.

As evidence of the sound common sense of the Federation of State Medical Boards, we list below the principles underlying proposed legislation to authorize and provide for the temporary admission to practice of physicians and dentists during the war emergency. These principles were derived from a joint meeting of the F.S.M.B. and the P.A.S.:

STATEMENT OF PRINCIPLES TO BE RECOMMENDED TO THE RESPECTIVE STATE BOARDS OF REGISTRATION AND EDUCATION IN MEDICINE AND DENTISTRY

1. The need for relocation or assignment of physicians or dentists shall be determined by the Directing Board of the Procurement and Assignment Service with the aid of the State Committees of the Procurement and Assignment Service and other agencies and on agreement with the State Boards of Registration and Education in Medicine and Dentistry.
2. These needs shall be met as far as possible by the relocation of physicians or dentists holding licenses *within the State*.
3. Whenever possible, needs shall be met by taking full advantage of *existing provisions for reciprocity between the states and interstate endorsement*.
4. Whenever existing laws make impossible the granting of temporary certificates, state boards should recommend to the Governor and to the state legislatures the earliest possible enactment of the bill designed to make possible the utilization of physicians and dentists under *temporary certification*.
5. When existing measures for relocation of physicians or dentists prove inadequate, State Boards of Registration and Education may request the Directing Board of the Procurement and Assignment Service to certify to them the names and qualifications of physicians and dentists who have volunteered or who may be otherwise available for relocation, at which time also such physicians or dentists may be notified that their names have been sent to the State Boards making such requests.
6. The physician or dentist who accepts relocation shall agree to assignment to *the specific area in which services are required* and to acceptance of a certificate which *limits the duration of such service* to the period of the emergency and for such additional time as the State Boards may prescribe.
7. In view of the emergency character of this action, the Committee representatives, the Directing Board of the Procurement and Assignment Service, and the Federation of State Medical Boards of the United States recommend that fees for such certification be waived or reduced to a minimum.

This seems to be a practical approach to the instant needs of the country for medical service. We do not doubt that a similar practical approach will be made to the problem of premedical and medical education, at the moment seemingly threatened by military necessity.

¹ December 18, 1942.

Diabetic Coma

Diabetic coma is frequently, though not invariably, preventable. When it is present, prompt, skillful treatment should, with few exceptions, avert disaster. It is highly instructive, therefore, to study the factors that precipitate diabetic coma, and to analyze the causes of death therefrom.^{1,2,3}

Analysis reveals that infection is the precipitating factor in the majority of diabetic comas, while dietary infractions and insufficient insulin are responsible for about 25 per cent. Coma is the mode of onset in 5 per cent of diabetics, previously unaware that they were afflicted with this disease. Infection is the precipitating factor in such cases. It is the interesting and important contention of leading authorities in the field of metabolism that excessive carbohydrate ingestion is not a prime factor in the mechanism of diabetic acidosis.^{4,1} The female diabetic is twice as subject to attacks of coma as is the male. This has been ascribed to the pubertal and climacteric changes of the female.

The great majority of deaths from diabetic coma are due to shock or to the associated complicating disease. About 36 per cent of the mortality can be attributed to shock alone, even if infection is present. In the absence of infection—chiefly pneumonia and sepsis—shock is a cause of death in 75 per cent of the cases. This clearly indicates the line of treatment, the measures that should be taken to overcome shock, and the specific therapy which the underlying infection demands.

Criteria in appraising the prognosis of diabetic coma can be divided into major and minor. Advanced age of the patient, low blood pressure, and the severity of the under-

lying infection are the criteria that determine the outcome. Blood pressure below 80 mm. is an ominous sign. Factors of lesser importance are the duration of the coma, elevated blood sugar, and azotemia. Carbon dioxide combining power, per se, is not a valuable mortality index. If the coma is untreated for more than forty-eight hours, chances for survival are greatly reduced. Marked azotemia is always associated with, and is in part due to, severe shock. No single factor is an infallible, prognostic index, but all the factors enumerated, properly evaluated, determine the prognosis.

The lesson is plain. It is axiomatic that the diabetic patient must adhere to the schedule of his diet and insulin needs. Respiratory infections should be avoided as the plague. Skin and other infections call for immediate medical attention to avert septic complications, by chemotherapy or other appropriate measures. Once coma has supervened, no time must be lost. Fluid and salt requirements to restore the depleted blood volume should be quickly administered and the insulin requirements re-evaluated in the altered situation. The general treatment of shock should be promptly instituted. If the diabetic is educated along these lines as well as in the rules of diet and insulin action, coma will occur less frequently, and if unavoidable, will be treated with happier results.

1. Baker, T. W.: Arch. Int. Med. 58: 373 (Sept.) 1936.

2. Joslin, E. P., White, H. F., Marble, A., Root, H. F., and Joslin, A. P.: Arch. Int. Med. 59: 175 (Feb.) 1937.

3. Collen, M. F.: Arch. Int. Med. 70: 347 (Sept.) 1942.

4. Mirsky, I. A., Franzbau, A. N., Nelson, N., and Nelson, W. E.: J. Clin. Endocrinol. 1: 307 (Apr.) 1941.

5. Mirsky, I. A.: J.A.M.A. 118: 690 (Feb. 28) 1942.

Conditioned Blood Transfusions

The universal and frequent use of blood, plasma, and blood substitutes for shock, hemorrhage, dehydration, and other conditions characterized by depleted blood volume is the best testimony of their efficacy. In the case of plasma and blood substitutes, it is a simple matter to have the vital material on hand for immediate use, even in areas remote from centers of civilization. This does not hold true for blood; yet in cases of serious hemor-

rhage blood transfusion may be the only life-saving measure. Even if a blood bank and laboratory facilities are available, the time consumed in typing and cross-matching may mean, in instances of severe trauma or massive hemorrhage, the difference between life and death. In order to circumvent this deficiency, the blood of so-called universal donors, members of group O, has been modified or conditioned by an ingenious method¹ so that such

blood may safely be used in transfusions on the spot, without typing, or matching, with the blood of the recipient. This conditioned blood can be preserved, as in a blood bank, in the most remote areas, means of refrigeration being the only requirement.

The problem of conditioning group O blood for safe universal transfusion is the reduction or elimination from the donor blood of the anti-A and anti-B isoantibodies. This is accomplished by the addition of the blood group specific substances A and B to the collected O blood. The pure A and B substances are injected in measured amounts into O blood which has been collected into a vacuum container.¹ It has been demonstrated that this addition virtually neutralizes the undesirable and potentially dangerous isoantibodies. Of 176 transfusions by this method given to 147 patients,² there were no instances of hemolysis or agglutination with icterus and hemoglobinuria. In only 10 transfusions were there

fever and chills, a percentage which is of the same order as that encountered in transfusions with carefully matched blood, and cannot be attributed to these hemolytic isoantibodies.

It is not intended that conditioned blood transfusions should supplant the usual careful routine typing and cross-matching of bloods when time and facilities permit of such laboratory technic. For the grave emergency, however, where every minute is vitally precious, an apparently safe and tried method of transfusion is offered for immediate use. It may hereafter be highly advisable to have conditioned blood as part of a blood bank, for the extreme emergency, or as the sole blood to be used in isolated regions, such as remote battle lines.

¹ Witebsky, E., Klendshoj, N. C., and Swanson, P.: J. Infect. Dis. 67: 188 (Nov.-Dec.) 1940.

² Klendshoj, N. C., McNeil, N. C., Swanson, P., and Witebsky, E.: Arch. Int. Med. 70: 1 (July) 1942.

A letter from the Office for Emergency Management, War Manpower Commission, in Washington, D.C., was published on page 28 of the January 1 issue of the JOURNAL. The important part of the letter is reprinted below:

"It is of the utmost importance that the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, immediately have the name of any doctor who really is willing to be dislocated for service, either in industry or in overpopulated areas, and who has not been declared essential to his present locality. This is necessary if the medical profession is to be able to meet these needs adequately and promptly. We urgently request that any physician over the age of 45 who wishes to participate in the war effort send in his name to the State Chairman for the Procurement and Assignment Service in his state."

"Sincerely yours,

FRANK H. LAHEY, M.D., Chairman, Directing Board
Procurement and Assignment Service for Physi-
cians, Dentists, and Veterinarians"

Special Article

STATUS OF FOREIGN PHYSICIANS*

THIS abstract is a report to the membership of the State Society made after six months' study of the status of the foreign physician. Some of this material may be already known to you.

To familiarize you with the action leading to this study it would be well to give the background of action taken by the House of Delegates at its annual meeting in New York in April, 1942. The members passed a resolution requesting the Council of this Society to make a study of the status, present and future, of the noncitizen physician.

In May a Committee was appointed and was directed through the resolution to—

1. Make a study of the present and possibly the contingent future problem confronting the public and the medical profession.

2. Formulate a plan

- (a) "Taking into consideration the protection of the public."

- (b) "For the preservation of the standards of the medical profession."

- (c) "The safeguarding of the rights and legal interests of the members of that profession."

- (d) "With humane consideration of the situation of the emigre non-citizen physician."

3. "Present the report of such studies and their recommendations for the solution thereof and the means for its accomplishment, both present and future, at the next meeting of this House of Delegates."

4. "That the Council take such steps in the interim between this and the next meeting of this House of Delegates to properly safeguard the medical interests of the armed forces of the United States, the State of New York, the public health and welfare, and the existing standards of the profession of medicine."

It is advisable to note that factual relationships to licensure and to commissions for foreign physicians frequently change. The Committee will endeavor to keep the Council and the members informed of these changes as promptly as possible.

* Members of the Council Committee to Study the Present and Future Status of Foreign Physicians are Howard Fox, M.D., New York City, David A. Haller, M.D., Rochester; and F. Leslie Sullivan, M.D., Scotia, chairman.

The Committee determined that its policy is to improve the educational standards in relation to all applicants for admission to practice; second, that we are not concerned at present with the limitation of the number of doctors; third, that the work of the Committee relates to foreign applicants of all countries without discrimination as to race or creed.

In studying the annual report on medical licensure† and allied statistics by the Council on Medical Education and Hospitals of the American Medical Association, the Committee gives you the following data:

"For a period of twelve years beginning in 1926 the credentials of physicians coming from abroad have been verified by official correspondence with the medical school, either directly or through the diplomatic services. This has been impossible for the last several years, and on the licensing boards in the various states rests the responsibility of determining the authenticity of the evaluation of credentials presented from schools outside the United States and Canada."

"More than half of the examining and certifying boards obtain from the Council verification of biographic data and other claims before granting a license or permission to take the licensing examination."

"New York does not, however, obtain from the Council verification of data or other claims before granting a license or permission to take the examination. This decision rests with the New York State Department of Education."

"During the year 1941 there were 8,758 licenses issued to practice medicine and surgery in the forty-eight states, the District of Columbia, Alaska, Hawaii, Puerto Rico, and the Virgin Islands. Of the 8,758 licenses, 6,020 were issued after examination and 2,738 by reciprocity and endorsement."

"The greatest number of licenses during 1941 were issued in New York—1,173; California granted 630; Illinois, 581; and Pennsylvania, 539. These were the only states which registered more than 500. Twenty-two states and the territories and possessions issued licenses to fewer than 100. The fewest number (15) were issued in South Dakota."

† Medical Licensure Statistics for 1941, J.A.M.A. 119: 141 (May 9), 1942.

TABLE 1.—LICENTIATES REPRESENTING ADDITIONS TO THE MEDICAL PROFESSION, 1941

	Examination	Reciprocity and Endorsement	Total
California	347	6	353
Illinois	438	11	449
New York	804	189	993
Pennsylvania	385	14	399

Nevada licensed 16 and Delaware 22. An interesting point to observe is the fact that in some states the number registered without examination far exceeded those required to write an examination, while on the other hand in many states the reverse was the case. The latter is particularly significant in New York, where 886 took examinations and 287 received licenses by endorsement of their credentials. Louisiana issued only 12 of its 157 licenses on the basis of credentials only. Three were registered in the Virgin Islands, 11 in Alaska, 14 in Puerto Rico, and 31 in Hawaii. Of these, 21 were granted certificates by endorsement of credentials: 5 in Alaska, 13 in Hawaii, and 3 in the Virgin Islands. *The states of Florida and Idaho grant licenses only on the basis of examination. Massachusetts, Rhode Island, and Hawaii have no reciprocity agreements but endorse diplomates of the National Board of Medical Examiners.*"

"Since 1937, fewer licenses have been issued annually. In 1941 there were 395 fewer licenses issued than in 1940 and 1,075 fewer than in 1937. The increase in that year, of over 800 more than in 1936, represented largely physicians migrating to this country from Europe."

"Licenses issued do not, however, represent individuals, since several have been licensed in more than one state during the year. Nor does the total represent additions to the medical profession at large, since those licensed by reciprocity and endorsement, with the exception of the National Board of Medical Examiners, have previously been registered."

"There were 5,206 graduates of approved medical schools in the United States examined, of whom 4.6 per cent failed; 167 graduates of approved Canadian schools, 15 per cent of whom failed; 1,708 graduates of schools outside the United States and Canada, principally in Europe, with 59.6 per cent failures; 8 who graduated from medical schools now extinct, of whom 50 per cent failed; and 422 from unapproved and osteopathic schools, of whom 46 per cent failed."

"The total number examined (7,511) do not represent individuals, since a candidate might

TABLE 2.—SOURCE OF CANDIDATES EXAMINED, 1941

	Num-ber	Num-ber Exam-ined	Num-ber Passed	Num-ber Failed	Per-cent- age Failed
Medical Schools					
Approved, in U.S.	67	5,206	4,966	240	4.6
Approved, in Canada	9	167	142	25	15.0
Extinct	8	8	4	4	50.0
Foreign	104	1,708	690	1,018	59.6
Unapproved	13	422	228	194	46.0
Totals	201	7,511	6,030	1,481	19.7

take the examination in more than one state and would be counted in each state. This applies to those who pass or fail, or those who fail and later pass in one or more states, or pass in one or more states and later in the same year fail elsewhere. However, if a candidate fails more than once in a given state within the year, he is counted in that state only once as a failure."

"The source of candidates for licensure last year are further tabulated in Table 2, giving totals for five groups—namely, approved medical schools in the United States and in Canada, schools no longer in existence, schools of foreign countries, and unapproved institutions. Of the United States schools 4.6 per cent failed, and of the graduates of Canadian schools 15 per cent. The greatest percentage of failures represented two groups, foreign schools and unapproved schools. In these two groups 59.6 and 46 per cent, respectively, failed. Half of the 8 graduates of schools now extinct failed."

"One hundred and sixty-seven graduates of nine approved medical schools in Canada took the test for medical licensure in the United States in 1941 in thirty states, the District of Columbia, and Hawaii, of whom 142 passed and 25 failed. The greatest number (60) represented McGill University Faculty of Medicine, who were examined in twenty-two states, and 45 graduates of the University of Toronto Faculty of Medicine in seventeen states, while 17 from Dalhousie University Faculty of Medicine applied for licensure in three states. The highest percentage of failures was 80, representing 5 graduates from the University of Montreal Faculty of Medicine examined in four states, only one of whom was successful. The State of New York examined 42 Canadian graduates; California, 23; Minnesota, 12; and Pennsylvania, 11. All other states testing Canadian graduates examined fewer than 10, and nineteen states and Hawaii fewer than 5. Seventeen of the total number of failures (25) were unsuccessful in the examination of the New York Board of Medical Examiners."

TABLE 3.—GRADUATES OF MEDICAL SCHOOLS IN CANADA EXAMINED FOR LICENSURE IN THE UNITED STATES, 1941

	Examined	Passed	Failed
California	23	23	0
Illinois	7	6	1
New York	42	25	17
Pennsylvania	11	11	0

"Twenty states examined 1,708 graduates of medical schools other than those in the United States and Canada. One took the test in Alaska and 4 in Puerto Rico. In 1941 also 422 unapproved graduates were examined in four states and Hawaii."

"Forty-three candidates were examined in Alaska, Hawaii, and Puerto Rico, 37 of whom passed, and 6 of whom failed. Of these, 19 were tested in Hawaii, with one failure; 18 in Puerto Rico, with 5 failures; and 6 were examined in Alaska and passed."

"Altogether in 1941 there were 7,511 examined, of whom 6,030 passed and 1,481, or 19.7 per cent, failed."

"The number so examined in 1941 was a decrease of 410 from the number examined in 1940; likewise a decrease of 252 among successful returns and a decrease of 158 among those who failed. The number of graduates of foreign medical schools examined in 1941 was considerably fewer than in previous years."

In Tables 4 and 5 attention is drawn to the figures for the states selected in Table 5.

Of the total number (190) from foreign faculties examined in the United States, 101 passed and 89 failed. The percentage that failed was 46.8; the number of examining boards was 13.

"From the nine approved medical schools in Canada which offer the complete course, 104 were examined. There were 190 recent graduates of medical schools of countries other than the United States and Canada, and 275 graduates of unapproved schools."

"Combined totals for the graduates of the three years for each of these groups including the number examined, passed, and failed, are given in Table 4."

"Of the graduates of medical schools in the United States, 3.9 per cent failed, with the graduates of Canadian schools showing 14.4 per cent failure, those holding foreign diplomas 46.8 per cent, and graduates of unapproved schools 37.5 per cent."

Failures Before Medical Examining Boards by Licentiatees

"Seventeen states licensed in 1941 only physicians who had never failed a state board

TABLE 4.—SOURCE OF GRADUATES OF 1939, 1940, AND 1941—EXAMINED, 1941

Medical Schools	Examined	Passed	Failed	Per-centage Failed
Approved, in U S	4,740	4,554	186	3.9
Approved, in Canada	104	89	15	14.4
Foreign	190	101	89	46.8
Unapproved	275	172	103	37.5
Totals	5,309	4,916	393	7.4

TABLE 5.—GRADUATES OF 1939, 1940, AND 1941, EXAMINED FOR MEDICAL LICENSURE, 1941

Foreign Medical Faculties	Passed	Failed
California	2	0
Illinois	9	5
New York	69	70
Pennsylvania	1	3

examination, while New York licensed 417 who had failed previously. With the exception of California, Illinois, Massachusetts, New Jersey, Ohio, and Pennsylvania, no state licensed more than 8 such candidates."

"In the computation of these statistics, it was noted that 57 licentiatees had failed five or more times. Of these, 22 had five failures before obtaining a license, 10 had six, 9 had failed seven examinations, 3 individuals had failed eight and nine times, 2 failed ten, 2 failed eleven, and 2 failed fourteen tests. Noteworthy were 4 candidates from unapproved medical schools licensed in Massachusetts, one each after sixteen, seventeen, twenty-three, and twenty-five unsuccessful attempts. The great majority of these physicians were Massachusetts and New York examinees. There was one graduate of an approved school in the United States who made fourteen attempts in New York before registration."

"The number of physicians granted licenses in 1941 to practice medicine and surgery without examination on presentation of satisfactory credentials is given in Table 6. There were 2,729 so registered who presented licenses from other states, the District of Columbia, Canada, and foreign countries, the certificate of the National Board of Medical Examiners, one of the government services, or other credentials."

"The greatest number of licenses granted by this method were issued in New York, where 287 were registered. Seven other states endorsed more than 100 such candidates: California 229, Michigan 188, Ohio 116, Texas 112, Illinois and New Jersey 107, and Massachusetts 100. The largest group representing the same type of credentials were the 714 diplomates of the National Board of Medical

TABLE 6.—CREDENTIALS PRESENTED BY PHYSICIANS FOR LICENSURE BY RECIPROCITY AND ENDORSEMENT, 1941

	Pa.	N.Y.	Ill.	Calif.
Total Licensed	93	287	107	229
Alabama		2	1	
Arizona				1
Arkansas			2	3
California		4	2	
Colorado				3
Connecticut				1
Delaware	2			
Dist. of Columbia				
Florida				
Georgia		1	1	3
Idaho				1
Illinois	4			14
Indiana	3	1	4	1
Iowa	1	6	1	8
Kansas			3	14
Kentucky			1	1
Louisiana		2	3	5
Maine	2			
Maryland	8	12	2	6
Massachusetts				1
Michigan	5	3	8	11
Minnesota	1	4	6	18
Mississippi				
Missouri	2	1	21	12
Montana				1
Nebraska	1	6	6	11
Nevada				
New Hampshire				
New Jersey	13		1	2
New Mexico				
New York	13			23
North Carolina		1		1
North Dakota				3
Ohio	3		6	15
Oklahoma				2
Oregon		1		6
Pennsylvania		12	8	9
Rhode Island				2
South Carolina				1
South Dakota				1
Tennessee	2		4	3
Texas	1	3	1	1
Utah				3
Vermont				
Virginia	3	5		1
Washington		2		1
West Virginia	2	1		1
Wisconsin	1		5	8
Wyoming				1
U.S. Gov. Services				6
National Board of Medical Examiners	26	214	21	23
Hawaii				1
Canadian & Foreign		4		
Miscellaneous		2		

Examiners. Two hundred and fourteen were registered on the basis of such credentials in New York and 100 in Massachusetts."

"One license was granted in New York by endorsement of a license issued in Germany. Two were registered in this state without examination on the basis of a diploma from a European medical school. Eight presented licenses issued in Canada as follows: one each in New York and Wyoming and 2 in Oregon presented licenses issued by the Dominion of Canada, while a physician was certified in Kentucky on a Newfoundland provincial license, another in Tennessee who presented a New Brunswick credential, and in New York 2 were registered on provincial licenses—namely, Ontario and Quebec."

"Of the 2,738 candidates licensed by reciprocity and endorsement, 2,559 were gradu-

TABLE 7.—LICENTIATES REPRESENTING ADDITIONS TO THE MEDICAL PROFESSION CLASSIFIED BY SCHOOLS, 1941

Foreign Medical Faculties		To New York State 439 represents 70 per cent
Examination	612	
Reciprocity and Endorsement	14	
Total	626	

ates of approved medical schools in the United States, 56 of seven schools so approved in Canada, 52 graduates of foreign faculties of medicine, 53 of institutions now extinct, and 9 each from unapproved and osteopathic schools."

Licentiates Representing Additions to the Medical Profession

"There were 5,681 additions to the medical profession in 1941. The number removed by death annually approximates 3,700. It would appear that the physician population in 1941 was increased therefore by about 1,900. While it cannot be said that all of those licensed are in practice, it may be assumed that the great majority are. The greatest number in any one state were added in New York—993; and 449 in Illinois. More than 300 received their first license in California and Pennsylvania."

"From the United States schools there were added to the profession by examination 4,290 graduates and 448 by reciprocity or endorsement, a total of 4,738; from the Canadian schools, 90; by examination, 85; and without examination, 5. There were 626 graduates of foreign faculties of medicine, 226 from unapproved schools and from a school now extinct."

"Altogether there were 5,213 graduates of all schools added to the medical profession in 1941 by examination for licensure and 468 by reciprocity and endorsement, a total of 5,681. The number of living physicians in the United States in 1941 was approximately 180,871."

With but four exceptions—namely California, Massachusetts, Nebraska, and Connecticut—the state licensing boards specify two years or more of college as a preliminary requirement. It is to be noted that New York is among the states requiring two years or more of preliminary training—that is, pre-medical study.

Quoting from Handbook 9 of the University of the State of New York: "Effective September 1, 1942, the required two years of college study shall include approved courses in English, physics, and biology, covering at least one academic year each; and approved courses in chemistry, covering at least one and one-half

TABLE 8.—REQUIREMENTS OF PRELIMINARY TRAINING BY MEDICAL LICENSING BOARDS

Two Years or More of College		
Alabama	Louisiana	Oklahoma
Alaska	Maine	Oregon
Arizona	Maryland	Pennsylvania
Arkansas	Michigan	Puerto Rico
Colorado	Minnesota	Rhode Island
Delaware	Mississippi	South Carolina
District of Columbia	Missouri	South Dakota
Florida	Montana	Tennessee
Georgia	Nevada	Texas
Hawaii	New Hampshire	Utah
Idaho	New Jersey	Vermont
Illinois	New Mexico	Virginia
Indiana	New York	Washington
Iowa	North Carolina	West Virginia
Kansas	North Dakota	Wisconsin
Kentucky	Ohio	Wyoming
One Year of College		
California	Connecticut	
High School Graduation or Its Equivalent		
Massachusetts	Nebraska	

TABLE 9.—INTERNSHIP REQUIRED BY MEDICAL LICENSING BOARDS OF ALL CANDIDATES*

Alabama	New Hampshire	Utah
Alaska	New Jersey	Vermont
Delaware	North Dakota	Washington
District of Columbia	Oklahoma	West Virginia
Hawaii	Oregon	Wisconsin
Idaho	Pennsylvania	Wyoming
Illinois	Puerto Rico	
Iowa	Rhode Island	
Michigan	South Dakota	

* In addition some states require the internship of graduates of medical faculties abroad and reciprocity or endorsement of applicants.

TABLE 10.—CANDIDATES EXAMINED, 1937-1941

	1937	1938	1939	1940	1941	Totals for 5 Years
Total Examined	7,334	7,461	7,754	7,925	7,511	37,985
Passed	6,604	6,589	6,493	6,290	6,030	32,006
Failed	730	872	1,261	1,635	1,481	5,979
Percentage failed	10.0	11.7	16.3	20.7	19.7	15.7

academic years, including an approved course in organic chemistry. Approved courses covering one academic year shall in each case be substantially equivalent to six semester credit hours. (Regulations, approved December 20, 1935, and amended December 20, 1940.)"

Required Hospital Internships

New York State is not listed in Table 9. However, New York State does require satisfactory evidence of completion of internship of graduates of medical faculties abroad, "leading to and requisite for the license to practice medicine in the country where such medical school is located. The requirement that such examination be passed and that such internship be completed may be waived by the Commissioner and the applicant admitted to the examination, providing that the applicant submits satisfactory evidence that failure to pass the examination and complete the internship was due to circumstances outside his control and which arose out of international emergencies. This does not affect students who began their medical education in Europe prior to March 1, 1933," or about the time of the invasion of Austria. The quotation is from Handbook 9, 1942, of the University of the State of New York. This regulation was passed after the first World War because graduates of extramural schools of Scotland and certain schools in Italy and other countries could not get back to take their State License examinations or could not furnish proof of their internship in the country in which they were studying. Of course at this time the license feature works both ways, for Americans as well as foreigners.

The medical licensing boards of twenty states, the District of Columbia, Alaska, Hawaii, and Puerto Rico require that all applicants for licensure serve a hospital internship.

Candidates Examined

"The number of candidates examined in the United States, its territories, and possessions in the five-year period 1937-1941 are given in Table 10. For each year there is recorded the number who passed and failed licensing examinations. Totals for the five-year period and the percentage of candidates who failed are also given."

"During this period 37,985 were tested, of whom 32,006 were successful, and 5,979, or 15.7 per cent, failed. Of these, 3,414 were examined in New York and passed, 2,517 in Illinois, 2,513 in Pennsylvania, and 1,930 in California. More than 1,000 were successful also in Massachusetts, Michigan, Minnesota, New Jersey, and Ohio. Nine states examined and passed between 500 and 1,000 applicants for licensure, thirty states and the District of Columbia registered fewer than 500, and in ten of these fewer than 100. The smallest number, 8, passed examinations in New Mexico."

"The percentage of failures in all states and the territories and possessions has increased from 10 per cent in 1937 to 20.6 per cent in 1940. The number failing in 1941 was 19.7 per cent."

"The greatest percentage of failures occurred in Massachusetts, which had an average of 48.2. The high percentage in that state is due to the fact that by law the licensing board

TABLE 11.—REQUIREMENTS OF CANDIDATES FOR MEDICAL LICENSURE ON THE BASIS OF CREDENTIALS OBTAINED IN COUNTRIES OTHER THAN THE UNITED STATES AND CANADA

	Admitted to Exami- nation	Admitted by Endorse- ment of State License*	Citizen- ship	Basic Science Certifi- cate	Intern- ship in Hospital in United States	Further Medical Training	Exami- nation Fee, Dollars	Other Require- ments
Alabama.....	+	+	+	..	+	..	10	1
Arizona.....	Not accepted	+	..	..	+	..	..	..
Arkansas (reg. and homeo. boards).....	Not accepted	+	..	..	+	..	..	..
California.....	+	+	..	..	+	+	25	11
Colorado.....	+	+	1st P	..	+	..	25	11
Connecticut (regular board).....	+	..	1st P	+	..	..	25	11
Delaware (regular board).....	+	..	+	+	..	..	25	11
District of Columbia.....	+	+	..	+	+	..	25	11
Florida.....	+	..	+	+	..	..	25	11
Georgia.....	+	..	+	+	..	..	25	11
Idaho.....	+	..	+	+	..	..	25	11
Illinois.....	+	..	1st P	..	+	..	25	11
Indiana.....	+	+	..	+	+	..	25	11
Iowa.....	+	+	+	+	+	..	25	11
Kansas.....	+	..	+	+	+	..	25	11
Kentucky.....	Not accepted	+	..	..	..	..	25	11
Louisiana (reg. and homeo. boards).....	Not accepted	+	..	..	..	..	25	11
Maine.....	+	+	1st P	..	+	..	27	11
Maryland (reg. and homeo. boards).....	+	..	1st P	..	..	..	25	11
Massachusetts.....	+	..	1st P	..	..	..	25	11
Michigan.....	+	+	+	+	+	..	25	11
Minnesota.....	Not accepted	+	..	+	+	..	25	11
Mississippi.....	Not accepted	+	..	..	..	..	15	..
Missouri.....	+	+	+	..	..	..	50	..
Montana.....	+	+	+	+	..	..	25	..
Nebraska.....	+	+	+	+	..	..	25	..
Nevada.....	Not accepted	+	..	..	..	..	25	..
New Hampshire.....	+	+	+	..	+	..	20	11
New Jersey.....	+	+	+	..	+	..	25	..
New Mexico.....	Not accepted	+	..	..	+	..	25	..
New York.....	+	+	1st P	..	..	..	25	..
North Carolina.....	Not accepted	+	..	..	..	..	25	11
North Dakota.....	+	+	+	..	+	..	25	11
Ohio.....	+	+	+	..	..	..	25	..
Oklahoma.....	Not accepted	+	..	+	+	..	25	..
Oregon.....	+	..	1st P	+	+	+	25	..
Pennsylvania.....	+	..	1st P	+	+	+	25	11
Rhode Island.....	+	..	1st P	+	+	+	20	11
South Carolina.....	Not accepted	+	..	+	+	..	25	..
South Dakota.....	Not accepted	+	..	+	+	..	25	..
Tennessee.....	Not accepted	+	..	..	..	..	25	..
Texas.....	+	+	+	..	..	..	25	..
Utah.....	Not accepted	+	..	..	..	..	25	..
Vermont.....	Not accepted	+	+	..	+	+	25	11
Virginia.....	+	..	1st P	+	+	+	25	11
Washington.....	+	..	1st P	+	+	+	25	11
West Virginia.....	Not accepted	+	..	+	+	..	25	..
Wisconsin.....	Not accepted	+	..	+	+	..	25	..
Wyoming.....	Not accepted	+	..	+	+	..	25	..
Alaska.....	+	+	+	..	+	..	25	11
Hawaii.....	+	+	+	..	+	..	25	..
Puerto Rico.....	+	+	+	..	+	..	25	..

* Refer to chart of "Reciprocity and Endorsement Policies" for further data. (See page 131.)

1 Certificate of National Board of Medical Examiners and licensure in country in which school of graduation is located.

2 Internship or one year in medical school in United States.

3 Certificate of National Board of Medical Examiners.

4 For graduates of last five years: if more than five years, \$50.

5 Residence of one year in Delaware.

6 Provided similar privileges are accorded licentiates of District of Columbia by licensing agency of the jurisdiction from which the applicant comes.

7 Senior year in class A medical school in United States.

8 No applications accepted after Feb. 21, 1941.

9 Enemy aliens not accepted.

10 Application must be filed six months prior to date of examination.

11 Licensed to practice medicine and surgery in country in which school of graduation is located; otherwise required to complete senior year in approved medical school in United States.

12 Diplomates of National Board of Medical Examiners eligible.

13 License to practice medicine and surgery in the country in which the school of graduation is located.

14 Internship and one year graduate work.

15 Diplomates of the National Board of Medical Examiners exempt from special requirements.

16 Internship and graduate work.

17 Internship completed in foreign countries after July 1, 1934 not acceptable.

18 Rotating internship in approved hospital in the United States or completion of senior year in class A medical school in the United States.

19 These requirements apply also to graduates of Canadian schools.

20 Graduates from foreign medical colleges accepted if they present also a diploma from an approved medical school in the United States.

21 Provided standard was the same as California's on the same date.

22 Degree from an American medical school. Medical Council of Delaware required.

23 Diplomates of the National Board.

24 Very limited number contracting to be accepted.

is required to admit to its examination the graduates of unapproved schools, the majority of whom repeatedly fail. New York had a failure percentage of 40.5, occasioned in part by the admittance to examination of a large number of graduates of foreign faculties of medicine, who likewise repeatedly failed. On the other hand, twenty-eight states failed less than 5 per cent; in twelve of these the percentage of failures was less than one. In five years seven states—Arkansas, Nebraska, North Carolina, Oklahoma, Oregon, Utah, and Wisconsin—had no failures."

"These figures represent examinations given, and not individuals. A candidate who fails more than once in a state in a given year is counted as only one failure, but should he fail in one of the succeeding years he is counted in that year also. The same is true of the successful candidates. Table 10 is merely a compilation of figures computed annually and grouped for comparison. Nevertheless, it gives a fair approximation of the number of physicians added to the profession in five years by means of written examination."

"With the migration of physicians to this country, beginning in 1936, and their failure to pass examinations, the percentage of failures began to rise until it reached a peak of 20.7 in 1940. In 1941 it dropped 1 per cent for the country as a whole in spite of the high percentage of failures in New York State. The rise in failure percentages has also been due to the inability of graduates of unapproved medical schools to obtain licensure successfully without failure."

"Graduates of Approved Schools and Others Registered, 1922-1941"

"In 1928 the classification A, B, and C by the Council was discontinued and medical schools have since been classified as approved or unapproved."

"Of the 8,768 registered by all methods in 1941, 7,727, or 88.1 per cent, represented graduates of approved medical schools, and 1,041, or 11.9 per cent, the group designated as 'others.'"

"Of the 8,768 registered in 1941 there were 5,112 who were graduates of approved medical schools of the United States and Canada, licensed by examination, and 2,615 licensed without examination. By examination, 221 unapproved graduates and 697 foreign graduates were registered. Likewise among those registered by endorsement there were 24 graduates of unapproved schools and 99 foreign graduates."

"New York registered 735 graduates of approved schools of a total of 1,175 registered. This state licensed the largest number with foreign credentials—439. Only graduates of approved schools in the United States and Canada were registered in Kansas, Minnesota, Nebraska, Nevada, North Dakota, South Carolina, and South Dakota."

Physicians Examined on Basis of Credentials Obtained in Countries Other than the United States and Canada

"The requirements of candidates for medical licensure in the United States, Alaska, Hawaii, and Puerto Rico on the basis of credentials obtained in countries other than the United States and Canada, based on data recently received from state boards of medical examiners, are given in Table 11. Eighteen states report that, because of the inability to evaluate foreign credentials, holders of such certificates are not eligible for licensure, while one state reported that no new applications have been accepted since February 21, 1941. Seventeen states, Alaska, Hawaii, and Puerto Rico require full citizenship, and ten states require first naturalization papers as a condition precedent to taking the examination. *In some states the requirement is by rule of the medical board; in others the provision is by statute. In addition, other restrictions are imposed.* Ten states which accept foreign graduates require a certificate in the basic sciences. Sixteen states, Alaska, Hawaii, and Puerto Rico require a one-year internship in a United States Hospital approved for intern training. In five states there is a requirement of a senior year's work in an approved medical school in the United States. In four states these graduates are not acceptable unless they can present a license to practice medicine and surgery in the country in which the school of graduation is located. In one state a limited number contracting to practice in rural districts may be accepted, while another reports that enemy aliens are not considered."

For comparative study the Committee chose what they considered to be a model cross section of the United States in regard to the requirements of certain states for foreign physicians to be admitted to examination in that particular state. The states chosen were:

1. New York State—Licensed 70 per cent of the total number of foreign physicians admitted to practice in the United States in 1941.

2. California—Fourth largest number licensed.

3. Pennsylvania—Admitted 13; ninth largest number licensed.

4. Texas—Licensed 5 or less.

5. Kansas—Admitted none.

6. North Carolina—Admitted none.

In examining laws in regard to medical practice of the various states chosen, the following information is available:

New York State—see Table 11. In this table are listed the requirements for medical licensure on the basis of credentials obtained in countries other than the United States and Canada. Note that first citizenship papers are required in New York State.

California—In addition to usual pre-medical and medical studies, it is required under Section 2193, C, D, E:

C. "He has been admitted or licensed to practice medicine and surgery in the country wherein is located the institution in which he has completed the residence courses of professional instruction required under this chapter."

D. "He has completed either the senior or fourth or final year in an approved medical school in the United States, or, in lieu of this, he has served at least one year in residence in a hospital located in the United States and has been approved by the board for training of interns."

E. "If the applicant is not a citizen of the United States, the country in which he has been licensed to practice medicine and surgery will admit to practice therein citizens of the United States upon proof of prior admission to practice medicine and surgery in some state of the United States or upon proof of matters similar to those required in this section for graduates of foreign medical schools. Subdivision E does not apply to any person who on March 31, 1941, was registered as an intern under Chapter 5 of Division 2 of the Business and Professions Code, relating to the practice of medicine (as amended, Laws of 1941, Ch. 751)."

No other limitations, rules, or regulations are mentioned except those in Table 11 of this report.

Pennsylvania—Requires internship in approved United States hospital.

Texas—Article 4500—"May endorse license if citizen is a graduate of reputable medical college ("reputable" meaning one eligible for examination by Board of Medical Examiners). Board shall not grant license to applicant who does not hold license issued by another state, territory, or district of the United States."

Article 4500 A—"Foreign nations, Reciprocal

Arrangements with: The Board of Medical Examiners shall not, under the provisions of Article 4500, grant a license to practice medicine to any applicant whose authority to practice medicine in any other nation or country was granted by a nation or country in which a similar law in reference to granting license to practice medicine under a reciprocal arrangement does not exist in favor of physicians of this State (Laws of 1939, p. 352)."

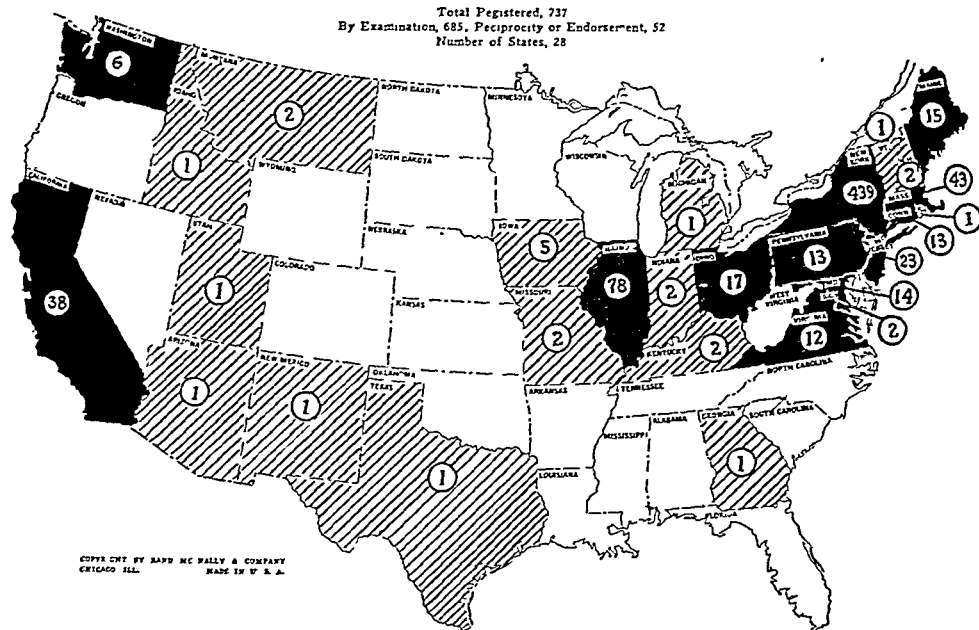
Kansas—Citizenship required. Physicians must be licensed to practice medicine in country where school of graduate is located, or must complete senior year of an approved United States medical college.

North Carolina—Board of Medical Examiners are appointed by the North Carolina Medical Society, Inc. See 6607, Code of 1939, Ch. 110, Laws of 1941, Ch. 163.

"In the figures regarding physicians examined on the basis of credentials obtained in countries other than the United States and Canada by licensing boards of the United States, Alaska, and Puerto Rico, they represent both American and foreign-born physicians educated abroad. Since 1930, and until the issuance of passports was terminated by the Department of State, students from the United States migrated to Europe to obtain medical education. It is estimated that 2,000 were studying in Europe. Many were able to complete their training and returned to the United States to practice. Many of those licensed in recent years represent foreign-born physicians. One hundred and four faculties of medicine, including four licensing corporations, of nineteen European and five other countries were represented. There were 1,708 examined by twenty states, Alaska, and Puerto Rico, of whom 690 passed and 1,018, or 59.6 per cent, failed. Graduates of the University of Vienna represented the largest group—479—who were examined in fourteen states with a percentage of failures of 57. Ten states examined 139 graduates of the University of Berlin, of whom 60.4 per cent failed. Graduates of all other schools were examined in fewer than ten states. The greatest number examined by any one state (1,207) were in New York," or 70.67 per cent of the total number examined in the United States, of whom 426 passed and 64.7 per cent failed. Massachusetts examined 139, of whom 102, or 73.4 per cent, failed. Illinois examined 119, of whom 34.5 per cent failed. More than 25 were examined in 1941 in California, Connecticut, and New Jersey. Of these states, Connecticut had the highest percentage of failures

CHART — STATES REGISTERING GRADUATES OF MEDICAL FACULTIES ABROAD, 1941

Total Registered, 737
By Examination, 685, Reciprocity or Endorsement, 52
Number of States, 28



The states in black registered more than 5 such candidates, those shaded 5 or less.

CHART 1.

—68.3. Seven states examined one each, 6 of whom were successful.”

“Chart 1 shows in graphic form the number registered during 1941 by states examining graduates of foreign faculties of medicine. Included in the chart are 52 who were granted licenses without examination, with but 3 exceptions, on the basis of a license obtained in the United States. The states which licensed more than 5 graduates are indicated by states reproduced in black; those shaded, 5 or less.”

“There are assembled figures showing for the five-year period 1936-1940 the number of graduates of faculties of medicine outside the United States and Canada admitted to licensing examinations in this country. Included also is a tabulation for 1941. There were represented one hundred and nineteen European faculties, nine of the licensing corporations of Great Britain, and sixteen schools of other countries.”

“During the five-year period 1936-1940, 6,451 were examined, with 45.2 per cent failures and, in 1941, 1,708 with 59.6 per cent failures.”

“The largest group from any one school examined in the five-year period were 1,318 from the University of Vienna, of whom 45.7 per cent failed. There were 650 from the University of Berlin, with 44.9 per cent

failures. Large numbers also were examined who presented credentials from the universities of Prague, Paris, Freiburg, Frankfort-on-the-Main, Würzburg, Munich, Breslau, Heidelberg, Bologna, Naples, Rome, Basel, Bern, Zurich, Geneva, and Lausanne. Two hundred and eighty-four in the five-year period presented in lieu of the M.D. degree the triple qualification certificate of Scotland. These individuals obtained their education in the so-called extramural schools of Scotland.”

“Statistics record the number of graduates of faculties of medicine abroad examined for medical licensure in the United States in twelve years—1930 to 1941 inclusive. Altogether, 9,588 were examined, of whom 5,093 passed and 46.9 per cent failed. The greatest number, 2,088, were examined in 1940, when 54.7 per cent failed. The number licensed in twelve years increased from 92 in 1930 to 948 in 1940. In 1941, 158 fewer were registered than in 1940. The highest percentage of failures occurred in 1941—59.6. At no time during this twelve-year period did fewer than 30.7 per cent fail.”

“The Council on Medical Education and Hospitals does not grade or classify medical schools outside the United States and Canada. No opportunity is afforded for visiting and inspecting such schools, nor are official reports

received from them. The Council therefore has no evidence on which to base a rating."

The National Board of Medical Examiners, on February 15, 1942, adopted the following drastic resolution relative to examination of foreign physicians:

"Resolved, that, beginning February 15, the National Board of Medical Examiners will not accept applicants for admission to its examinations from graduates of any medical school in continental Europe or from graduates of the extramural schools of Scotland and Ireland."

"This action does not apply to graduates of university schools in the British Isles or to those candidates who had registered before February 15, 1942."

"One of the factors that caused the board to take this action was the refusal of approximately one-half of the states of this country to grant licenses to physicians trained in European medical schools even though they had been certified by the National Board."

Relative to the problem of a commission for foreign physicians, the latest data obtainable is given—"That alien doctors of friendly, neutral, or cobelligerent countries—that is, those countries with government in exile—may be commissioned directly into the army under the following conditions:

1. They must have equivalent premedical and medical education.
2. They must have had a license in their own country.
3. They do not need their first papers.
4. Refugees not having governments in exile or not from friendly or neutral countries must be inducted and then commissioned, provided that they are cleared by the F.B.I. They must furnish affidavits that they have no relatives in belligerent armed forces."

These refugees of the latter group must register with the local boards, and:

1. They must have a certified copy of their medical papers (translated).
2. They must have a certified copy of their license and all papers pertaining thereto.
3. They must have information as to the schools from which they graduated.
4. They must have certified first papers and official certified papers of internship.
5. They must present an affidavit that since arrival in this country they have engaged in no activity detrimental to the United States.

It is pointed out that alien refugees must get their citizenship because they have no country and that state licensure cannot be waived

for a commission except to friendly aliens. It is believed that few of New York's 3,000 licensed emigres will be taken into the Army at the present time. They will not be admitted to practice in essential industry.

Relocation and universal conscription is now under consideration. Under Section 1262 of the State Education Law, entitled "Construction of this article," we quote: "This article shall not be construed to affect or prevent the following: (1) The practice of medicine in this state in obedience to the requirements of the laws of the United States by any commissioned medical officer serving in the United States Army, Navy, or Public Health Service or any physician or surgeon employed in the United States Veterans' Administration while engaged in the performance of the actual duties prescribed for him under the United States statutes."

It will be noted, as construed, that this article allows the United States to send physicians into the State of New York to practice in conformance with instructions issued by the Federal Government. It is believed that other states have similar clauses which would allow relocation of doctors to most all of the states and possessions. It has been brought out that in writing up the Lend Lease Act these features were incorporated to allow physicians operating under a federal law to practice in possessions owned by other governments also.

As previously related, it is noted that last year New York State licensed 737 foreign physicians, or 70 per cent of the total for the entire United States and possessions, including the District of Columbia. There were a total of 5,681 additions to the medical profession in 1941. New York State had 1,173 new licenses, and 993 of this number were additions to the profession, or 17.4 per cent of the total number of additions to the medical profession in 1941. The markedly increased load of examinees who are graduates of foreign faculties is shown in the following table.

Summary of the New York State Medical Licensing Examination (Foreign Schools)—1934-1935 to 1941-1942

	Total	Failed	Failed
			Percentage
1934-35	297	119	40.1%
1935-36	402	159	39.6%
1936-37	571	192	33.6%
1937-38	789	318	40.3%
1938-39	1,211	700	57.8%
1939-40	1,770	1,249	70.5%
1940-41	1,644	1,204	67.2%
1941-42	1,558	963	61.9%

It is to be noted from these figures the gradual increase of candidates from 1933, past the peak of emigration in 1934, to the peak of

examinees in 1940. This great increase is due to two things:

1. That the laws of the State of New York are less stringent than those of most other states.

2. That foreign refugees are coming into New York State from countries, mainly South American, and other states in the Union where they had settled several years before.

It is to be noted also that:

1. Twenty states, including Alaska, Puerto Rico, and Hawaii, require full citizenship in addition to other essentials before examination.

2. Eighteen states will not review any credentials of foreign physicians.

3. In ten states, including New York, they are allowed to take the examination with first papers. Four of these states, in addition, demand an internship in a hospital in the United States.

4. One requires, also, further medical training, such as a senior year in medical school.

Requirements of Foreign Candidates for Medical Licensure in the State of New York

(On the basis of credentials obtained in other countries)

The State of New York does not accept the rulings and biographic data of the Council on Medical Education and Hospitals of the American Medical Association.

The State Education Department obtains its own biographic data and sets its own lists. The credentials are verified by student pass books, statements from the registrar of the school, and the original document or diploma.

The approved foreign faculties are listed on page 35 and 36 of Handbook 9, of the University of the State of New York, which contains laws, rules, and regulations. These give merely "registered schools" of Canada. All other foreign schools are classified as "recognized schools." The applicant from these schools can be recognized only if he was graduated from the school before the Hitler regime, or approximately at the time of the invasion of Austria. There is no official list and the graduates of these schools (1914-1938) are approved only on previous work. *New York State has been more generous than other states in this regard.* Original documents only and not photostats of licenses are acceptable. Four have been licensed on eminence since 1918, although there was a period a few years ago when many were endorsed. All others

licensed without examination up to 1937 were accepted by endorsement. In New York State in 1936 there were 932 examined (all classes) and 558 added by endorsement. The total was 1,517. Of this number, 454 were foreign physicians, of whom 217 were added by examination and 237 by endorsement. Figures for succeeding years are given below.

Year	Endorsement
1937	196
1938	70
1939	25
1940	22
1941	3

The above figures can be explained in this way. Up until the year 1936 emigre physicians could have their licenses endorsed, without examination, under Section 51 of the State Education Law. There were many endorsed and there were in addition many other applicants. It was ruled that those that had previously applied would be handled under the old ruling and, after 1936, those are the figures for the number of foreign licenses endorsed under the old ruling. Previously, some foreign physicians were licensed in the State of New York by endorsement through the National Board of Medical Examiners. These licenses would not be included in the above figures.

The committee feels that the status of the foreign physician is very intimately related to the work of Procurement and Assignment. There were in 1941, 27,712 living doctors in the State of New York. Of this number, about 17,600 are members of the New York State Medical Society. This leaves about 10,000 physicians in the State that are not members of the New York Medical Society, some of whom have graduated from grade A schools and might be liable to military service if they were in the draft age. Many of these men who have either dropped their New York State membership or have not applied are physicians interested in specialties.

As far as your Committee can ascertain from studying available figures, there are approximately 6,000 physicians from foreign faculties in the United States, excluding American graduates of foreign schools. As of January 1, 1942, there were:

In New York State, about 4,250. Of this number 3,141 licensed (85% males).

In New York City,* about 1,800, grouped as follows:

* Figures for New York City cover the five counties, and no break-down is available.

TABLE 12.—NEW YORK STATE EDUCATION DEPARTMENT LICENSES ISSUED TO FOREIGN PHYSICIANS—1932-41, INCLUSIVE

	Examination	Endorsement	Total
1932	85	27	112
1933	89	40	129
1934	110	101	211
1935	178	80	258
1936	248	210	458
1937	379	133	512
1938	622	51	673
1939-40	1,370		349
1941			439
			3,141

(Of this total figure it is not known the exact number that may have left the state to practice elsewhere.)

Licensed and practicing, about	600
Serving internships	325
In other institutional work	458
Unlicensed, not in other groups, about	400

The above data is from information obtained from the Procurement and Assignment Service, the New York State Education Department, the National Committee for Resettlement of Foreign Physicians, and the National Refugee Service (see Table 12).

With the problem arising from the exhaustion of communities by the processing of the nation's physicians for the armed forces and the probable relocation of physicians to supply communities by the Manpower Commission, the need to (1) "maintain a numerical balance of all physicians in the counties, and (2) relieve the shortage of medical personnel in those counties, already exhausted," is readily apparent.

The New York State Medical Society, through this Committee, initiated the move to provide better collaboration and coordination between the office of Procurement and Assignment and the County Medical Preparedness Committees.

The outgrowth of this meeting has been already felt. "We talked about the conservation of balance throughout the counties of the State, feeling that if we could maintain a favorable balance geographically and in regard to the types and activities of the doctors, that would forestall resettlement, as it were, of many physicians." (This quotation is from a report to the Council.)

At the present time there is a movement under way through certain extramedical committees and services, and among the foreign physicians themselves, to settle into these communities where doctors have left for the armed service, and the Committee feels that we might be able through that method (con-

servation of balance) to aid in the care of the public health.

The Procurement and Assignment Service says (December 7, 1942) that upstate New York at the present time has oversubscribed its full quota and that from now until spring at least, and perhaps all of 1943, most physicians processed will be recruited from the metropolitan area.

Through the efforts of Dr. Louis H. Bauer, Chairman of the Medical Preparedness Committee of the New York State Medical Society, and Dr. Joseph R. Clemmons, State Chairman of Procurement and Assignment, meetings are being held in most sections of the State at the present time with the chairmen of Medical Preparedness Committees of all county societies.

On the question of balance, Dr. Clemmons said:

"Do not declare available any man if you consider him essential to the health and welfare of your community. If you declare a man essential, it is your duty to convince him that he is. He should be instructed not to make application for commission either at the Recruiting Board or to the Surgeon General's Office without first consulting the local Medical Preparedness Committee.

"It is the responsibility of the Medical Preparedness Committees to evaluate their men and accordingly maintain a numerical balance in so far as is possible."

Local Needs for Physicians, Civil and Industrial

As of December 5, 1942, our President has placed all matters of Manpower, both civil and military, under the control of Chairman Paul V. McNutt, of the Federal Security Board. What this may mean in the matter of the movement of physicians has not yet been made clear. However, the present need for physicians in civil and industrial life is slight. This question should be followed actively by the Public Relations Committees of the State and the counties. Any communities found short would promptly receive the assistance of these committees. There are many regularly licensed physicians in New York State who are willing to change their place of residence to supply (or fill) any medical needs in civil or industrial communities.*

* The Committee is indebted to the A.M.A. for Chart 1, for figures used in the tables, and for other material which appeared in the J.A.M.A. of May 9, 1942.

TUBERCULOSIS INVOLVING THE GENITOURINARY TRACT FOLLOWING TRAUMA

J. C. McCLELLAND, M. D., Toronto, Canada

TRAUMA as a cause of tuberculosis in the genitourinary tract is extremely rare. In the preparation of this paper, it was necessary to look far afield from my local sphere of urologic experience in Toronto, in order to collect a few cases. A letter was sent to the Workmen's Compensation Boards in every province of the Dominion of Canada, and from a large number of claims the Medical Directors of the Provinces of Manitoba, Quebec, and Nova Scotia very kindly forwarded me their cases, which I am presenting to you today. No claims had occurred in the other provinces. A few cases were collected from the Weston Sanatorium just outside of Toronto, one from Dr. Slotkin in Buffalo, and one from the Toronto General Hospital, which had been reviewed by the Workmen's Compensation Board of Ontario.

Incidence

One may get an idea as to the rarity of these cases by the figures of the Medical Director of the Manitoba Workmen's Compensation Board, Dr. A. J. Fraser, when he says, "the number of claims resulting from accidents during the past twenty-five years of operation of the Board now amounts to approximately 227,730," from which he had two cases of tuberculosis of the genitourinary tract, which are quoted below. The percentage of incidence becomes 0.00087 of 1 per cent, or approximately $\frac{9}{10,000}$ of 1 per cent, of accidents.

Case Reports

The following cases are divided into seven groups, according to the structures involved in the tuberculous process:

I. Renal.....	1 case
II. Renal and genital.....	4 cases
III. Bone and renal.....	1 case
IV. Joint and genital.....	1 case
V. Pulmonary and genital....	1 case
VI. Genital only.....	4 cases
VII. Genital before trauma.....	5 cases
Total 17 cases	

In the case histories presented below the

Read by invitation at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

pathologic reports are quoted where possible. The histories are necessarily quite short.

I. RENAL

Case 1 (P. P., Aged 27—Claim No. 108351 Quebec)

History.—On September 21, 1932, he fell from a height of 8 feet striking his back against a rock. Passed blood in the urine the day of the accident. Examination on November 7 and November 12 showed a left renal tuberculosis and a sound right kidney. A left nephrectomy was performed on November 18, 1932. Discharged from hospital December 21, 1932.

Decision.—The Commission decided that the claimant was afflicted with tuberculosis of the left kidney prior to his accident, but allowed the claim as one of aggravation. They paid compensation to May 20, 1933, (eight months) together with the hospital bill and the surgeon's fee, but did not allow any permanent disability connected with the trauma.

Comment.—Renal tuberculosis was present previous to the accident which aggravated the condition and led to the immediate removal of the kidney.

II. RENAL AND GENITAL

Case 2 (E. B., Aged 52—Claim No. 406432 Quebec)

History.—On March 21, 1934, this man sustained an injury to the left testicle which was later diagnosed as tuberculous epididymitis with involvement of the testicle. A left castration was performed August 25, 1934, five months later. Subsequently, he was found to have a left renal tuberculosis.

Decision.—The Commission paid compensation up to October 3, 1934 (seven months) and allowed a 5 per cent permanent disability, but denied all liability as to the renal tuberculosis, as it concluded that the man had an established renal tuberculosis at the time of the accident. The claim was allowed merely on an epididymitis and orchitis, as being an aggravation of a tuberculosis already present.

Comment.—An epididymitis developed here after trauma in the presence of renal tuberculosis.

Case 3 (P. K., Aged 32—Claim No. 122061 Manitoba)

History.—On September 16, 1932, while helping to lift a loaded hand car, he is alleged to have strained himself and to have been seized with a pain in the groin. He ceased work half a day

later and was admitted to hospital. His surgeon reported a traumatic orchitis, as the swelling suggested a hematoma. On November 29, two months later, a left orchidectomy was done and the pathologic report showed tuberculous epididymitis and orchitis.

Four months later, on January 23, 1933, a tuberculous epididymitis developed in the right side, which progressed to form an abscess.

Cystoscopic investigation revealed a bilateral renal tuberculosis.

Complete chest examination was negative for any evidence of tuberculosis.

Decision.—The Board accepted liability until the healing of the wound in the left side.

Comment.—In the presence of bilateral renal tuberculosis a sudden muscular strain is alleged to have produced a sudden pain in the left groin, which was found subsequently to be a tuberculous epididymitis. Later the second epididymis became involved. Two months elapsed between the accident and the orchidectomy.

Case 4 (H. K., Aged 51—Claim No. 155815 Manitoba)

History.—On August 1, 1936, he fell while at work and received a direct injury over the genitalia. He remained at work for a day and a half and sought medical advice two days following the accident. The left testicle was swollen to twice the normal size and was very painful. Nineteen days after the accident, the painful swelling had subsided but the epididymis was still hard. Six weeks after the accident an abscess had formed and a left epididymectomy was performed, because the condition was considered tuberculous.

The pathologic report was tuberculous epididymitis. The attending surgeon commented: "apparently a more or less quiescent process lighted up by injury." The patient had a discharging sinus for months.

On June 22, 1937, or eleven months after the accident, he was admitted to the Winnipeg General Hospital for cystoscopy and a diagnosis of bilateral renal tuberculosis was made.

His chest examination was negative for tuberculosis, as was his radiologic examination.

He was allowed compensation until the healing of his operation wound.

Comment.—It was considered that the patient had an injury which became tuberculous in the presence of renal tuberculosis.

Case 5 (J. W. N., Aged 29—W. C. B. Nova Scotia)

History.—On July 16, 1936, the patient was struck on the left testicle with the end of a crowbar. Pain, swelling, and hematuria followed. There was no previous history of hematuria. The swelling remained. An incision was done three weeks after the accident, and pus was evacuated from an abscess of the epididymis. Frequency developed, the abscess failed to heal, and on January 25, 1937, six months after the accident,

he was admitted to hospital. The left epididymis, vas, and both seminal vesicles were thickened, the urine was positive for tubercle bacilli, and there was a left apical tuberculosis. The dorsal and lumbar spines were negative for evidence of tuberculous disease.

Sanatorium treatment was started and a cystoscopic examination was not attempted for fear of starting meningitis. The frequency continued to grow worse.

He was readmitted to hospital on August 2, 1937, and cystoscopy showed a bilateral renal tuberculosis. He continued under treatment until August 23, 1940, when the Board considered that he had recovered from the effects of the accident of July 16, 1936. At that time there was a questionable activity in his lungs, but he returned to work. The Medical Officer of the Board says: "As this case developed it became more and more apparent that the pre-existing focus of infection in the lungs was present and active, in all probability before the accident in 1936."

Comment.—This patient was one of those unfortunate individuals who harbor an organism over which they cannot gain control, but it progresses from place to place. The lowered vitality of the injured area allowed the tubercle bacilli to gain a foothold and produce a lesion. It is likely that the renal and pulmonary lesions were present at the time of the injury and that the tuberculous epididymitis developed secondary to them.

III. BONE AND RENAL

Case 6 (S. P., Aged 21—Dr. George Slotkin's Case, Buffalo)

History.—The patient was first seen on November 22, 1932, complaining of frequency, urgency, and dysuria associated with pain in the left costo-muscular angle. A left renal tuberculosis was diagnosed and this kidney removed. The right one showed no evidence of any lesion.

Her previous history was that fourteen months before presenting herself to Dr. Slotkin her right wrist had been lacerated in a car accident. This healed at first but broke down in a month and a tuberculous semilunar bone was removed.

Her chest had showed no evidence of tuberculosis and there was no other illness suggesting a possible focus for the original trouble in the right semilunar bone.

Comment.—This case showed a renal tuberculosis diagnosed fourteen months following the accident to the wrist. Dr. Slotkin's final note says: "This case was of special interest from the medicolegal point of view because of the correlation of events from the time of the injury to her nephrectomy. Originally, the attorney sued for the injury of the hand only, but the bill of particulars was amended to include the kidney infection. At the litigation the relationship of the kidney infection to the injury was established on

the basis of: (a) urinary tuberculosis being a secondary disease dependent on a primary focus, in the case of the injured wrist; (b) the element of time between the appearance of the renal tuberculosis and the tuberculous wrist."

The kidney which was removed had rather an advanced area of destruction which had probably originated from the bone lesion in the wrist. It has also been shown by Dr. Davis and myself in our series of bone tuberculosis that 22.9 per cent developed renal tuberculosis.*

In the Orthopedic Service for tuberculosis at the Weston Sanatorium, I am informed that from 15 to 20 per cent of the patients admitted attribute their bone lesion to some injury. Invariably, investigation has showed that the tuberculous process must have been present before the injury, since it was too well established to be due to a recent injury.

IV. JOINT AND GENITAL

Case 7 (A. O. V., Aged 37)

History.—The patient was admitted to Weston Sanatorium on June 16, 1941, for treatment of a tuberculous knee, which first gave symptoms in 1934. He was in an accident in 1934, in which he was crushed in a mine and the left testicle became swollen and painful. He was treated for venereal disease first and later saw another doctor, who in May, 1934, removed a tuberculous testicle and epididymis. Several weeks later an abscess developed in the scar, tuberculous pus was obtained, and the sinus took two and a half years to heal.

The right epididymis is not involved and the urine has been negative for pus cells and tubercle bacilli on several examinations by smear and culture.

This patient applied for compensation but it was not allowed. He is now under treatment for his knee condition.

Comment.—This was a case of tuberculosis epididymitis following trauma, which occurred at the same time as an arthritis in the patient's knee, and which has subsequently shown itself to be tuberculosis.

V. PULMONARY AND GENITAL

Case 8 (G. S., Aged 54, Weston Sanatorium)

History.—This patient had an active pulmonary tuberculosis. He had a bilateral scrotal swelling which was partly due to epididymitis and partly due to bilateral hydroceles. These swellings had followed the use of a truss for bilateral inguinal herniae, having come on about three months after it was used first. There was no frequency, but the bladder urine contained pus cells and guinea pigs inoculated with it were positive for tubercle bacilli. His death was caused by his pulmonary disease.

Autopsy showed bilateral tuberculosis in both epididymes, while both kidneys were negative

for evidence of tuberculosis, both in the gross and on section.

Comment.—This was a case of injury to the epididymes by a truss, which caused tuberculosis in a patient who had an active pulmonary tuberculosis.

VI. GENITAL

Case 9 (H. E. S., Aged 25)

This young man was admitted to Toronto General Hospital on September 19, 1924, and discharged on November 4, 1924.

History.—On August 12, 1924, one month before admission, he was injured in the left testicle while carrying a piece of timber. There was a good deal of pain that night and the next day, though he went to his work. Later in the day he had to stop because he could walk only with great difficulty. He stayed in bed three weeks before the swelling started to subside, but some still remained and he was admitted to hospital.

Examination showed the left cord to be the size of one's little finger, with swelling in the whole epididymis and a fluctuant mass the size of a 25-cent piece involving the skin. The left seminal vesical was indurated and enlarged. The chest entirely negative. Blood pressure was 152/72.

Urinalysis.—The urine was alkaline; specific gravity, 1.030; no albumin; no sugar. Microscopic examination revealed occasional pus cell and tubercle bacilli, found on guinea pig inoculation.

Nonprotein nitrogen was 26 mg. Wassermann was negative.

Operation.—Left orchidectomy and epididymectomy, with removal of cord.

Pathologic Report.—Tuberculous epididymitis and orchitis.

Comment.—No other tuberculous focus was found. The tubercle bacilli in the urine might have come from a renal tuberculosis, the tuberculous epididymitis, or both. Ureteral catheterization was not done.

Case 10 (L. D., Aged 27—Claim No. 409070 Quebec)

History.—On May 5, 1934, there was an injury to the left testicle, which was followed by a swelling in the epididymis and the formation of an abscess. This was opened on July 5, just two months after the accident.

Decision.—The Commission was of the opinion that the claimant was affected with tuberculosis, allowed the claim as being an aggravation of a pre-existing pathologic condition, without permanent disability, and paid compensation up to August 28, 1934 (three and a half months).

Case 11 (E. B., Aged 43—Claim No. 482454 Quebec)

History.—On November 13, 1935, the patient fell against a stump, striking his right groin. He later developed a bilateral tuberculous epididymitis.

*J. Urol. 47:No. 3 (March) 1942.

later and was admitted to hospital. His surgeon reported a traumatic orchitis, as the swelling suggested a hematoma. On November 29, two months later, a left orchidectomy was done and the pathologic report showed tuberculous epididymitis and orchitis.

Four months later, on January 23, 1933, a tuberculous epididymitis developed in the right side, which progressed to form an abscess.

Cystoscopic investigation revealed a bilateral renal tuberculosis.

Complete chest examination was negative for any evidence of tuberculosis.

Decision.—The Board accepted liability until the healing of the wound in the left side.

Comment.—In the presence of bilateral renal tuberculosis a sudden muscular strain is alleged to have produced a sudden pain in the left groin, which was found subsequently to be a tuberculous epididymitis. Later the second epididymis became involved. Two months elapsed between the accident and the orchidectomy.

Case 4 (H. K., Aged 51—Claim No. 155815 Manitoba)

History.—On August 1, 1936, he fell while at work and received a direct injury over the genitalia. He remained at work for a day and a half and sought medical advice two days following the accident. The left testicle was swollen to twice the normal size and was very painful. Nineteen days after the accident, the painful swelling had subsided but the epididymis was still hard. Six weeks after the accident an abscess had formed and a left epididymectomy was performed, because the condition was considered tuberculous.

The pathologic report was tuberculous epididymitis. The attending surgeon commented: "apparently a more or less quiescent process lighted up by injury." The patient had a discharging sinus for months.

On June 22, 1937, or eleven months after the accident, he was admitted to the Winnipeg General Hospital for cystoscopy and a diagnosis of bilateral renal tuberculosis was made.

His chest examination was negative for tuberculosis, as was his radiologic examination.

He was allowed compensation until the healing of his operation wound.

Comment.—It was considered that the patient had an injury which became tuberculous in the presence of renal tuberculosis.

Case 5 (J. W. N., Aged 29—W. C. B. Nova Scotia)

History.—On July 16, 1936, the patient was struck on the left testicle with the end of a crowbar. Pain, swelling, and hematuria followed. There was no previous history of hematuria. The swelling remained. An incision was done three weeks after the accident, and pus was evacuated from an abscess of the epididymis. Frequency developed, the abscess failed to heal, and on January 25, 1937, six months after the accident,

he was admitted to hospital. The left epididymis, vas, and both seminal vesicles were thickened, the urine was positive for tubercle bacilli, and there was a left apical tuberculosis. The dorsal and lumbar spines were negative for evidence of tuberculous disease.

Sanatorium treatment was started and a cystoscopic examination was not attempted for fear of starting meningitis. The frequency continued to grow worse.

He was readmitted to hospital on August 2, 1937, and cystoscopy showed a bilateral renal tuberculosis. He continued under treatment until August 23, 1940, when the Board considered that he had recovered from the effects of the accident of July 16, 1936. At that time there was a questionable activity in his lungs, but he returned to work. The Medical Officer of the Board says: "As this case developed it became more and more apparent that the pre-existing focus of infection in the lungs was present and active, in all probability before the accident in 1936."

Comment.—This patient was one of those unfortunate individuals who harbor an organism over which they cannot gain control, but it progresses from place to place. The lowered vitality of the injured area allowed the tubercle bacilli to gain a foothold and produce a lesion. It is likely that the renal and pulmonary lesions were present at the time of the injury and that the tuberculous epididymitis developed secondary to them.

III. BONE AND RENAL

Case 6 (S. P., Aged 21—Dr. George Slotkin's Case, Buffalo)

History.—The patient was first seen on November 22, 1932, complaining of frequency, urgency, and dysuria associated with pain in the left costo-muscular angle. A left renal tuberculosis was diagnosed and this kidney removed. The right one showed no evidence of any lesion.

Her previous history was that fourteen months before presenting herself to Dr. Slotkin her right wrist had been lacerated in a car accident. This healed at first but broke down in a month and a tuberculous semilunar bone was removed.

Her chest had showed no evidence of tuberculosis and there was no other illness suggesting a possible focus for the original trouble in the right semilunar bone.

Comment.—This case showed a renal tuberculosis diagnosed fourteen months following the accident to the wrist. Dr. Slotkin's final note says: "This case was of special interest from the medicolegal point of view because of the correlation of events from the time of the injury to her nephrectomy. Originally, the attorney sued for the injury of the hand only, but the bill of particulars was amended to include the kidney infection. At the litigation the relationship of the kidney infection to the injury was established on

charging sinus makes one suspect tuberculosis.

Also, a swelling in the epididymis which

comes on later than one to three months following the accident must not be considered to be due to the injury.*

* In conclusion, I want to thank those who have so kindly allowed me to quote their cases, particularly the medical directors of the various Workmen's Compensation Boards—viz.: Dr. A. J. Fraser, of Manitoba; Dr. Arthur LeClerc, of Quebec; Dr. D. E. Bell, of Ontario;

and Dr. H. L. Scammell, of Nova Scotia. I also wish to thank Dr. G. E. Slotkin, of Buffalo, for allowing me to quote his case, and Dr. K. E. Davis, of Weston Sanatorium, for his kindness in helping in the collection of some of the above material.

FAMILY HELP

The sharp increase in the number of quack psychologists and self-styled "family problem experts" in recent years reflects the strain of modern industrial life. Wartime conditions have heightened pre-existing tensions and placed added strain on the stability of the family unit.

To meet the growing need and desire for help with personal problems, the Jewish Social Service Association in New York City has established a Consultation Center for the middle-income group.

This new service applies the principles of modern family case work—heretofore utilized chiefly in behalf of welfare clients—to people of moderate means with personal or family problems with which they cannot cope. It does not

provide medical or legal advice but recommends recourse to either, if necessary, and stands ready to assist the doctor or lawyer when nonprofessional obstacles impede the realization of his professional aims for a patient or client.

The Consultation Center is operated on a nonprofit basis, though all applicants are required to pay a small fee, with a minimum charge of one dollar per appointment. The five regular district offices of the Association will continue to serve those unable to pay even a nominal amount for counsel and help.

Relief from anxiety is a recognized therapeutic agent. When a patient's family worries interfere with successful treatment or rehabilitation, this new Consultation Service may give the physician useful assistance.—*J. of the Med. S. County N.Y.*

Decision.—The Commission allowed the claim as being an aggravation of a pre-existing pathologic condition and paid compensation for total temporary incapacity to December 16, 1935, inclusively. They decided there was no permanent disability connected with the accident.

Case 12 (A. R., Aged 41—Claim No. 795727 Quebec)

History.—On November 18, 1940, following a trauma, A. R. displayed a tuberculous epididymitis and orchitis on the left side. Later on, the tuberculosis involved the right epididymis. A bilateral castration was done.

Decision.—The Commission allowed the claim as an aggravation of a pre-existing pathologic condition in the case of the left side, but denied all liability in connection with the right side. No permanent disability was allowed.

VII. GENITAL BEFORE TRAUMA

Case 13 (G. D., Aged 45—Claim No. 487842 Quebec)

History.—On December 27, 1935, the patient sustained an injury to the left testicle. Examination showed the presence of a tuberculous epididymitis, which existed *before* the trauma.

Decision.—The Commission accepted the claim as an aggravation and paid compensation up to February 4, 1935.

Case 14 (A. P., Aged 33—Claim No. 516325 Quebec)

History.—On June 19, 1935, this man sustained an injury to the right testicle. Previously, he had had a left castration for a tuberculous epididymitis. A right epididymectomy was done.

Decision.—The Commission allowed the claim as an aggravation of a right epididymal orchitis which was tuberculous and which existed prior to the accident. No permanent disability was allowed as a result of the trauma.

Case 15 (H. McA., Aged 37—Claim No. 518950 Quebec)

History.—On July 7, 1936, this patient's feet slipped and he fell; he felt a pain in the right testicle. Immediate examination revealed that he was suffering from a tuberculous epididymitis previous to his accident. On August 27, 1936, right castration was carried out.

Decision.—The Commission allowed this claim as being an aggravation of a pre-existing pathologic condition. Compensation was paid to September 30, 1936, and no permanent disability was allowed.

Case 16 (L. A., Aged 32—Claim No. 519990 Quebec)

History.—On June 9, 1936, the claimant fell straddling over the gable of a house, severely injuring his scrotum. Immediately after examination an epididymal and fistulous tuberculosis of the left side was diagnosed. It was a condition

that existed before the accident and aggravated by trauma.

Decision.—The Commission decided to pay compensation up to September 18, 1936, but did not allow any permanent disability.

Case 17 (C. X., Aged 29—Claim No. 533282 Quebec)

History.—On July 30, 1937, he sustained an injury to the right testicle. A chronic nodular tuberculous epididymis was diagnosed. This was not aggravated by the trauma.

Decision.—No aggravation of the pre-existing condition occurred and the claim was dismissed.

Summary

In this group of patients one sees tuberculosis in the genitourinary tract which has come to an area where no tuberculosis had existed previously. The lowered resistance and injury to that area produced a bed where tubercle bacilli in circulation found a good culture medium and produced a lesion. As these cases have illustrated, they have come from foci in the lungs, bones, and joints, and are secondary to other foci in the urinary tract. Genital tuberculosis had developed in the presence of renal tuberculosis. Genital tuberculosis spread from the injured testicle to the uninjured one.

This series includes five cases in which the genital tuberculosis was present in the organ which was injured. Once established in the genitourinary tract, the tuberculosis advances in the usual well-recognized ways. One should bear in mind that a high percentage of all nontraumatic cases of genital tuberculosis accompany or follow renal tuberculosis and the possibility of its presence should lead to routine cystoscopic investigation of the kidneys. This examination should not be omitted and the time for carrying it out should be when the acute symptoms in the epididymis have subsided.

A tuberculous lesion in the genitourinary tract is always secondary to some other focus. Even in trauma this must hold true, and is true in most of the cases quoted above. Where the original focus is not found, we presume that it must have been present and was probably healed. The injury to the part merely sets up a favorable site for the organisms to thrive in and form a pathologic lesion.

In the acute stage, a diagnosis cannot be made, but if after a period of three weeks or more the swelling does not subside, one should suspect tuberculosis. In addition, the formation of an abscess or, better, a chronic dis-

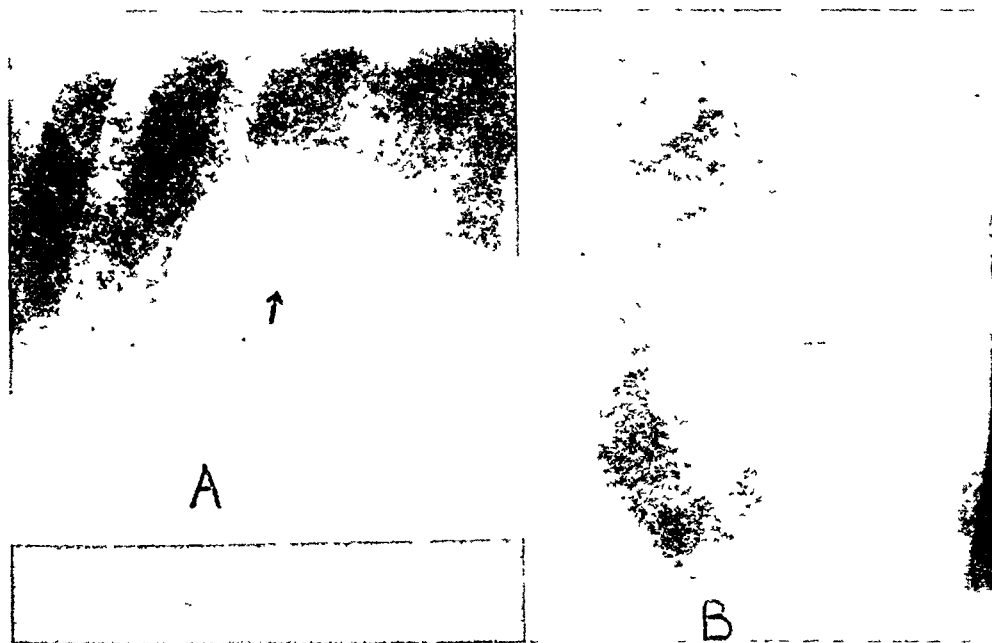


FIG. 1. Aspiration biopsy of spherical mass in left lung, using biplane fluoroscopic guidance. Roentgenograms A and B show point of needle in center of "tumor" after it was directed there under biplane fluoroscopic control. A tentative diagnosis of a dermoid cyst based on gross appearance of aspirated fluid was verified by histologic examination. Roentgenogram A was exposed by horizontal fluoroscopic beam with patient lying on right side, while vertical beam was used for B. Arrow indicates fluid level seen after injection of air.

genography, the radiologist was sometimes unable to offer an opinion concerning disease in the lung because of these interfering shadows. By means of the body section technic these shadows are eliminated, and recognition of the process is often possible (Fig. 3).

Experience with planigraphy over a period of several years indicates that it should be employed in every chest problem not solved by conventional roentgen methods. Our results are more spectacular with lung tumors and tuberculous cavities than with other abnormalities, but its use is by no means restricted to the demonstration of these conditions. Not only is a tumor identified by planigraphic separation of its shadows from those caused by surrounding dense lung, but also the determination of its depth allows accurate localization for aspiration biopsy (Fig. 3).

Providing that the tumor arises in one of the major bronchial divisions, the resultant narrowing or occlusion of the bronchus is demonstrable even though the tumor itself may be better visualized on a roentgenogram exposed at a slightly different depth than the

one that shows the deformed bronchus. Such a finding points to the existence of the major portion of the growth outside the bronchial lumen.

Constriction and invasion of the lateral tracheal walls that result from conditions such as Hodgkin's disease and adenoma and carcinoma of the thyroid are clearly demonstrated by antero-posterior planigraphy, and this procedure is the most satisfactory way to show side-to-side narrowing of the trachea, since the spine and mediastinal structures interfere when visualization is attempted through the use of conventional roentgen ray methods (Fig. 2).

Foreign bodies of poor opacity, demonstrable only by postero-anterior or antero-posterior roentgenograms but not by lateral projections (because of adjacent or surrounding atelectatic lung), are accurately localized by antero-posterior planigraphy. This localization is possible because the antero-posterior depth of the planigraphic section showing the foreign body is recorded on the film, and thus its position in the lung and its relationship to a nearby bronchus are apparent.⁴

RECENT ADVANCES IN ROENTGEN DIAGNOSIS OF DISEASES OF THE CHEST INCLUDING BODY SECTION ROENTGENOGRAPHY (PLANIGRAPHY)

BARTON R. YOUNG, M.D., Philadelphia

THE roentgen diagnosis of diseases of the chest remains difficult despite continued improvement in technic and newer methods of examination. For this reason it is necessary that the radiologist obtain as much information as possible about the chest by a combination of fluoroscopy and roentgenography before interpreting the results in the light of the history and clinical findings.

Fluoroscopy is an indispensable preliminary procedure not only because it yields invaluable information concerning the movements of the heart, lungs, and diaphragm, but also because it makes possible an intelligent film examination by revealing the location and nature of the disease.

Frequently fluoroscopy is more informative than any other single roentgen procedure. For example, when a nonopaque foreign body is lodged in the bronchial tree, its presence and position are detected by observing abnormal filling and emptying of the lung distal to the occlusion, with a characteristic shift of the heart and mediastinal structures during inspiration and expiration.

Fluoroscopic evaluation of the excursion of the leaves of the diaphragm is an essential part of the diagnostic procedure for a nonopaque foreign body, and it is equally important in the diagnosis of bronchial tumor, subdiaphragmatic infection or abscess, phrenic nerve paralysis, and emphysema because in all these conditions the diaphragm is either unilaterally or bilaterally limited in motion, depending upon the nature and location of the disease.

A discussion of fluoroscopy is not complete without mention of the value of biplane fluoroscopic guidance to the bronchoscopist during removal of an opaque foreign body, and to the thoracic surgeon while performing aspiration biopsy. Success in removing foreign bodies that are visualized with difficulty and also in obtaining satisfactory biopsy tissue for histologic study is largely due to adequate fluoroscopic guidance made possible

by the use of well-engineered equipment such as the biplane fluoroscope devised by Chamberlain.¹ Using this type of fluoroscope or a model equally efficient, an experienced radiologist is able to guide accurately the surgeon's aspirating needle into a dense tumor or cyst located anywhere in the chest (Fig. 1). In dealing with otherwise inaccessible lesions, aspiration biopsy frequently results in a positive diagnosis when all other methods, short of surgical exploration, are unsuccessful.²

After completion of the fluoroscopic study, roentgenograms of the chests are exposed with the patient in positions that best demonstrate the disease. The number of roentgenograms that are exposed, in addition to the conventional postero-anterior film, varies according to the diagnostic needs. Lesions of sufficient density to cast well-defined shadows are usually best localized and depicted by ventral (postero-anterior view) and lateral projections. When the disease process is very dense, an antero-posterior projection, using moderate overexposure and the Potter-Bucky diaphragm, is a worth-while addition to the routine film studies (Fig. 2B). Stereoscopic and oblique projections are frequently very informative and are included when indicated.

Lipiodol bronchography is an essential procedure in the diagnosis of bronchiectasis and is extremely valuable in revealing the site and extent of a stenosis or occlusion of the bronchial tree due to tumor or a non-neoplastic process. Farinas³ reports better results with solutions of organic salts of iodine such as uroselectan than with lipiodol in the bronchographic study of bronchiogenic carcinoma, especially when there is a high degree of obstruction of the bronchial lumen. These watery solutions flow more readily and are absorbed more rapidly than iodized oils, but better contrast is obtained with the latter.

Frequently the diagnosis of a disease process in the lung remains obscure despite detailed fluoroscopic and film studies because of the absence of a characteristic roentgen appearance of the disease or the failure of visualization on account of confusing superimposed shadows produced by the rib cage, spine, a layer of pleural fluid, or adjacent atelectatic lung. Until the advent of body section roent-

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Read by invitation at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942.

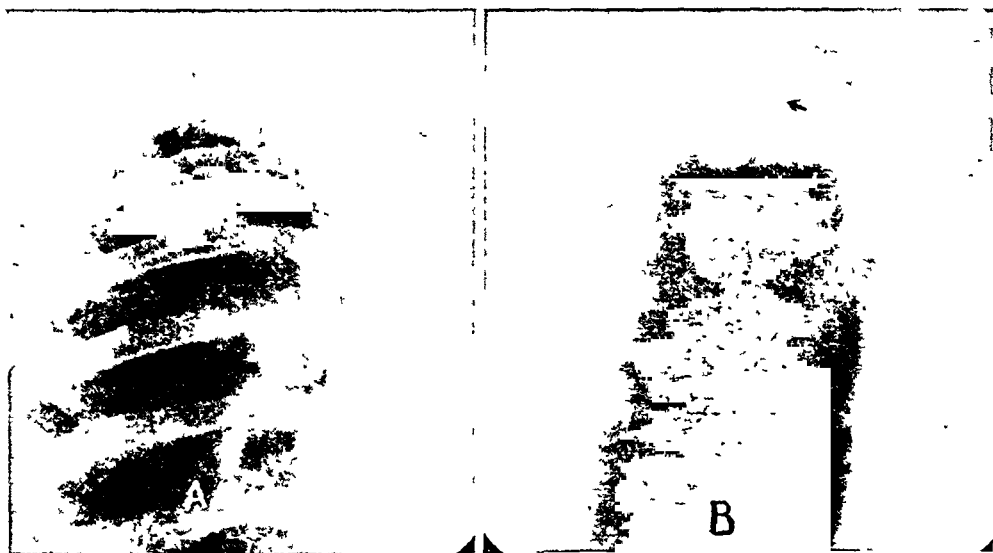


FIG. 4. Tuberculous cavity demonstrated by planigraphic roentgenogram B, not revealed by conventional postero-anterior view, A, or Potter-Bucky diaphragm studies. Annular or ovoid planigraphic shadows must be evaluated cautiously as emphysematous blebs or bullae occasionally simulate tuberculous cavities.

Summary

It is the primary duty of the radiologist to obtain the maximum amount of visual evidence of a disease process in the chest by employing every roentgen procedure that is an aid in diagnosis. The value of careful preliminary fluoroscopy is emphasized because this very important part of the diagnostic procedure is too frequently omitted. Biplane fluoroscopy, performed with well-engineered equipment, is invaluable to the endoscopist and thoracic surgeon when they need visual guidance for special procedures, such as aspiration biopsy and bronchoscopic removal of deeply lodged foreign bodies of poor opacity.

Body section roentgenography gives visual information not obtained by any other type of roentgen examination, especially when superimposed shadows prevent the demonstration of the disease by conventional methods. The method is particularly valuable for the demonstration of lung cavities and tumors not visualized by ordinary roentgen studies. If the examination is done thoroughly, planigraphy is as reliable in ruling out cavitation or

tumor of any appreciable size as it is in establishing the presence of either of these two conditions.

Tracheal stenosis, or distortion of the tracheo-bronchial tree resulting from any cause, is made apparent even in the presence of dense neighborhood structures, and, when indicated, planigraphy aids in localization of foreign bodies in the lungs.

The value of the test of irradiation to differentiate a lymphoblastoma from other chest tumors is briefly discussed.

The numerous ways in which roentgen rays are utilized for the recognition of diseases of the chest are indicated in this paper, but, despite their diagnostic value, the rays are used with maximum effectiveness only when there is close cooperation between clinician and radiologist and the roentgen results are carefully correlated with the clinical findings.

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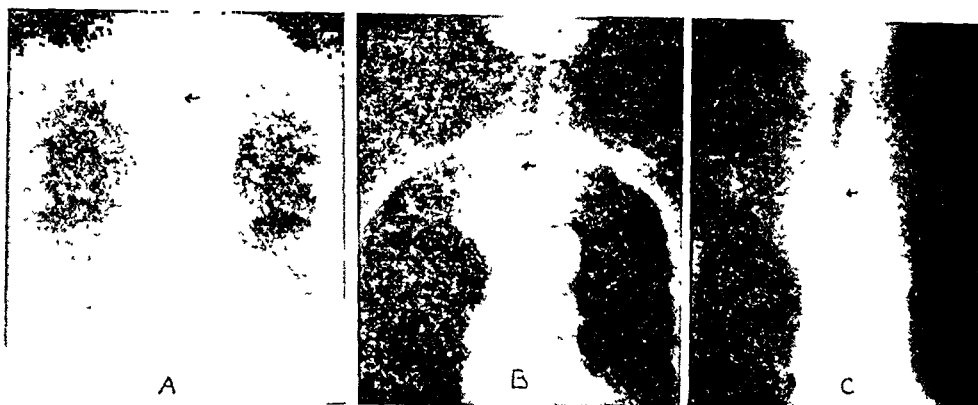


FIG. 2. Comparison of conventional and planigraphic roentgenograms of tracheal stenosis due to intrathoracic extension of diffuse adenomatous goiter. A—Conventional postero-anterior film affords poor visualization of trachea despite deliberate overexposure. B—Potter-Bucky antero-posterior film reveals goiter and tracheal narrowing, but deformity of trachea is demonstrated much better by planigraphic roentgenogram, C.

Planigraphy is invaluable for the demonstration of tuberculous and nontuberculous cavities not revealed by conventional roentgen studies because of interfering shadows, such as those caused by adjacent bony structures, thickened pleura, or surrounding dense lung (Fig. 4). For this reason the method is considered indispensable for patients with thoracoplasty when the clinical and laboratory evidence indicates breakdown of lung tissue and the conventional roentgen studies are negative for cavitation. Many times previously undetected tuberculous cavities are rendered visible by planigraphy when the disease is apparently controlled either by collapse therapy or by conservative treatment. Negative plani-

graphic findings are reliable for ruling out the cavity, providing that the examination is done thoroughly and that closely spaced, thin sections of the lung are obtained.

One additional diagnostic aid that is occasionally useful is the test of irradiation. This therapeutic test is carried out when lymphoblastoma is suspected and when there are no accessible lymph nodes for biopsy. A dose of 100 r, or even less, to the front and back of the lesion twice a week for two weeks is usually ample to produce a prompt decrease in the size of a neoplasm belonging to this group although this amount of irradiation will not appreciably affect other tumors in the chest.



FIG. 3. Planigraphic demonstration and localization of primary bronchial carcinoma. Rib and clavicle shadows interfere with visualization of tumor in A and B. Successful aspiration biopsy carried out despite poor definition of shadow on biplane fluoroscopic screen because planigram C localized lesion as to depth.

1921 through 1935, inclusive; and the annual number of deaths for each year from 1936 through 1941, for disease titles in which consistent reductions in mortality occurred. In all fourteen diseases, the numbers of deaths in 1937 and 1938 were fewer than the previous five-year average, and remained so thereafter. In fact, the numbers of deaths for all except one of the diseases (appendicitis) were less in 1937 or 1938 than the lowest number in any year from 1921 through 1935. The more striking changes occurred early in the period. For example, marked reductions were seen in scarlet fever and erysipelas mortality in 1937, and marked changes were seen in the mortality from diseases of the ear and mastoid and diseases of the pharynx and tonsils in 1938. In other conditions marked reductions occurred later, as in meningitis not due to the meningococcus, and pneumonia (all forms), for which sulfapyridine, sulfathiazole, and sulfadiazine were introduced in 1939, and afterward; and in appendicitis, for which combined local and general sulfonamide treatment for complicating peritonitis became widespread only in 1940, and afterward. The unusual reductions in mortality were superimposed on a previous downward trend in scarlet fever, measles, and infections during childbirth and puerperium. In meningococcus meningitis and in measles marked irregular variations associated with epidemic prevalence occurred before the introduction of the sulfonamide drugs. Examination of Table 2 shows that the changes in mortality for all fourteen titles in 1937, and following years, were either greater or more persistent or both greater and more persistent than any changes that occurred between 1921 and 1936, before the introduction of the sulfonamide drugs.

TABLE 1.—AMOUNTS OF SULFONAMIDE DRUGS PURCHASED ANNUALLY FOR USE IN NEW YORK CITY MUNICIPAL INSTITUTIONS*

Drugs	1937	1938	1939	1940	1941
		<i>(Amounts in Kilograms)</i>			
Sulfanilamide	260	545	778	803	342
Sulfapyridine			106	390	146
Sulfathiazole				8	613
Sulfadiazine					115
Total	260	545	884	1,201	1,216

* Courtesy of the New York City Department of Purchase.

The relative amount of change in mortality rates per 100,000 population following the introduction of the sulfonamide drugs is shown in Table 3, in which the average annual mortality for the five-year period 1932 through 1936, before the introduction of the sulfonamide drugs, is compared with the average annual mortality for the five-year period 1937 through 1941. The diseases are arranged in the order of the percentage reductions in mortality, which range from 82 per cent for erysipelas to 29 per cent for appendicitis. In the case of measles, scarlet fever, abortion with mention of infection, and infection during childbirth and puerperium, different bases are commonly used for calculation of the mortality rates—namely, population less than 5 years of age, population less than 15 years of age, and the annual number of live births. If these mortality rates were calculated in this manner, however, there would be little change in the percentage reductions in mortality following 1937.

The mortality for 1941, the latest year for which figures are available, is also given in Table 3, to show the present mortality from these conditions at the end of five years of progressive reductions. It is estimated that if the average mortality rate of 137.5 deaths per 100,000 population during the five years

TABLE 2.—ANNUAL NUMBERS OF DEATHS FROM DISEASES TREATED WITH SULFONAMIDE DRUGS

Disease (Title Used in International List)	Average for 5-Year Periods			Annual Deaths						
	1921- 1925	1926- 1930	1931- 1935	1936	1937	1938	1939	1940	1941	
Cerebrospinal (meningococcus) meningitis	106	305	142	226	101	53	36	17	42	
Scarlet fever	173	75	81	64	31	17	16	14	7	
Erysipelas	234	251	219	142	77	38	36	22	9	
Measles	404	255	107	83	28	42	1	3	25	
Meningitis (not meningococcus)	208	209	195	183	174	136	96	95	98	
Diseases of the ear and mastoid process	380	372	402	300	262	122	189	159	130	
Pneumonia (all forms)	8,210	9,115	7,580	6,549	6,504	4,737	4,234	3,410	3,383	
Empyema			110	131	120	82	88	74	56	
Diseases of the pharynx and tonsils			227*	218	191	125	93	62	48	
Appendicitis	912	1,053	1,059	1,049	935	825	800	677	564	
Abortion with mention of infection			83	69	61	50	48	56	39	
Infection during childbirth and through puerperium										
Phlegmon and acute abscess	141	135	92	91	80	61	74	63	44	
Osteomyelitis and periostitis	86	101	96	78	38	31	29	15	17	
			83	68	48	41	49	37	13	

* Two-year average.

MORTALITY FROM DISEASES TREATED WITH THE SULFONAMIDE DRUGS

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NUMEROUS reports of favorable therapeutic effects from the administration of the sulfonamide drugs in appropriate diseases have led to the expectation that striking reductions in mortality rates from many bacterial infections will follow the widespread use of sulfonamide therapy. Data as to the amount of the sulfonamide drugs used and the mortality* from fourteen different diseases in New York City were therefore tabulated to show the changes since the introduction of the various sulfonamide drugs.

Each sulfonamide drug was widely used soon after it became generally available. Records of the annual purchases (see Table 1) by the New York City Municipal Purchase Department, for use in city hospitals and clinics, show that considerable quantities of sulfanilamide were first purchased in 1937. Its use increased in 1938. In 1939, the use of sulfanilamide continued to increase, and sulfapyridine was also purchased. In 1940, the use of sulfanilamide was stationary and the use of sulfapyridine increased. Sulfathiazole was purchased in small amounts. In 1941, sulfathiazole was the principal drug purchased. The use of sulfanilamide and sulfapyridine declined; and sulfadiazine was also used, but in small amounts. Less complete data from pharmacies and voluntary hospitals confirm the relative popularity of the different drugs. Data from these sources indicate, however, that for about one year before the general use of each new drug relatively small amounts were supplied for study, without charge, by pharmaceutical companies to certain institutions and physicians. It is believed that only the wide general use, such as is indicated by the figures for municipal institutions, is of significance in connection with marked changes in mortality rates.

The following fourteen diseases were selected for tabulation because deaths ascribed to them are commonly associated with infections by micro-organisms susceptible to

the sulfonamide drugs, and because marked reductions in the mortality from each disease occurred during the period following the introduction of the sulfonamide drugs: cerebrospinal (meningococcus) meningitis; scarlet fever; erysipelas; measles; meningitis (not meningococcus); diseases of the ear and mastoid process; pneumonia (all forms); empyema; diseases of the pharynx and tonsils; appendicitis; abortion with mention of infection; infection during childbirth and puerperium; phlegmon and acute abscess; osteomyelitis and periostitis.

The deaths are classified according to the *International List of Causes of Death*, which is in use throughout the Registration Area of the United States, and are therefore comparable to those reported elsewhere. Only the primary cause of death is considered in this study, since no marked changes were made during the period in the application of the procedures described in the *Joint Cause Manual*, which describes the choice of primary and secondary and contributory causes of death from two or more reported causes. Revisions of the *International List of Causes of Death*, which became effective in 1931 and 1940, required readjustment in the annual reported deaths in only two titles, in 1940 and 1941—namely, abortion with infection and infection during childbirth and puerperium. In four titles, changes were made that could not be adjusted, and deaths for some of the earlier years were omitted. It is not possible to separate all reported deaths from infections susceptible to the action of the sulfonamide drugs from all other causes of death in these data, because the essential bacteriologic information was not regularly obtained by physicians, and was not required by the *International List of Causes of Death*. Many other disease titles contain some deaths ascribed to infections considered susceptible to the action of the sulfonamide drugs, but they are not tabulated here unless consistent changes in the annual number of deaths were noted following the introduction of the sulfonamide drugs.

Table 2[†] shows the average annual numbers of deaths for three five-year periods, from

* Assistant Director, Bureau of Laboratories, New York City Department of Health.

† Data on mortality were supplied through the courtesy of Mr. Thomas Duffield, director of the Bureau of Vital Records and Statistics of the New York City Department of Health. Helpful criticism and suggestions were made by Mr. Louis Weiner, chief of the Statistical Division, and Mr. Irving Galloway, junior statistician.

† Tabulations prepared by Miss Anne Eisenstadt, clerk, New York City Department of Health.

each caused by one micro-organism that is known to be susceptible to the sulfonamide treatment. In pneumonia, which is caused predominantly by the pneumococcus and beta-hemolytic streptococcus, therapeutic experiments have also shown uniformly striking reductions in case fatality rates that would justify the expectation of marked changes in mortality. The relatively small change may be due to the relatively shorter period since the introduction of potent drugs in 1939.

In others of the tabulated diseases, considerable diversity of opinion persists as to the mode of application, and the amount of effect on the mortality that is to be expected from the sulfonamide treatment. In three of the diseases—measles, scarlet fever, and appendicitis—the sulfonamide treatment was directed not at the original infection but at the bacterial complications commonly associated with death. In each of the three diseases, the complications were due to various micro-organisms which differ in their susceptibility to the sulfonamide drugs. Localized purulent infections often occur which are resistant to the action of the sulfonamide therapy. Reports of therapeutic effects in these diseases have varied considerably, both in the methods employed and in the results. The striking changes in the mortality from measles and scarlet fever following 1937, and in appendicitis following 1940, were therefore not expected by all observers. In the nine remaining disease titles a number of different pyogenic micro-organisms may be present, which vary in their susceptibility to the sulfonamide drugs, and localized purulent complications may occur, which, unless drained, are resistant to the therapeutic activity of the sulfonamide drugs. It is therefore surprising that four of these conditions (phlegmon with acute abscess,

diseases of the ear and mastoid, osteomyelitis and periostitis, and diseases of the pharynx and tonsils) should show a reduction of more than 50 per cent in mortality in the five years following 1937, as compared with the five previous years.

Because of the unexpected variations in the amounts of change in different disease titles, further information is needed to correlate the changes in mortality that have actually occurred with the changes in fatality rates reported following therapeutic experiments. Close correlation would be possible (1) if deaths were classified on the basis of the infecting micro-organism whenever this is known to the physician; (2) if data as to the number of cases were obtained; and (3) if data were obtained on the extent of the use of the sulfonamide drugs—particularly whether those who died received adequate therapy. It would seem advisable to have this information in order to show how nearly the maximum possible mortality reductions were being obtained by the general application of the sulfonamide drugs. In this connection, definite information is needed concerning the extent to which the drugs can be safely used, in the prophylaxis of acute bacterial complications as well as in the treatment of acute bacterial infections.

It is clear from the data presented that the sulfonamide drugs saved thousands of lives annually in New York City in the five years from 1937 through 1941, and that progressive improvement was still taking place in 1941, five years after the introduction of sulfanilamide. The sulfonamide drugs are one of the most potent weapons at hand for the reduction of mortality rates. Thorough study of their rational use, and the extent of their application, may provide a sound basis for even more favorable results.

BIRTH OF AN IDEA

The *New York State Journal*, published at Albany by Allen Eddy to report news from the State Capitol, has the following editorial in its September 7 issue:

"Upon her return from a visit to the United States, Dona Salvadorita de Somaza, wife of the President of Nicaragua, bought up every pawn ticket in her country, and every article so pledged for loans was returned to the original owner. The item bringing this news adds a statement of the obvious, 'there were many happy children and many happy poor families,'

throughout the country as a result of the First Lady's generosity.

"A mystery remains, however. Where did she get the idea? She acted in the matter on her return from the United States. Nobody hereabouts set the example."

It would be interesting to know where the good Dona got the idea for this novel form of philanthropy, but we can think of something even more interesting about it.

Where did she get the money?—*Hempstead Review Star*

TABLE 3—REDUCTIONS IN MORTALITY RATES PER 100,000 POPULATION FOLLOWING INTRODUCTION OF SULFANILAMIDE, IN 14 SELECTED DISEASES

Disease	Average Mortality Rate for 5-Year Periods		Percentage of Reduction	Current Mortality Rate—1941
	Before Sulfonamides 1932-1936	After Sulfonamides 1937-1941		
Erysipelas	2 8	0 5	82	0 1
Scarlet fever	1 1	0 2	82	0 09
Measles	1 4	0 3	79	0 3
Phlegmon and acute abscess	1 3	0 3	77	0 2
Cerebrospinal (meningococcus) meningitis	2 0	0 7	65	0 6
Diseases of the ear and mastoid process	5 1	2 3	55	1 7
Osteomyelitis and periostitis	1 1	0 5	55	0 2
Diseases of the pharynx and tonsils	3 0*	1 4	53	0 6
Pneumonia (all forms)	98 5	60 2	39	45 0
Meningitis (not meningococcus)	2 6	1 6	38	1 3
Abortion with mention of infection	1 1	0 7	36	0 5
Infection during childbirth and puerperium	1 3	0 9	31	0 6
Empyema	1 6	1 1	31	0 7
Appendicitis	14 6	10 3	29	7 5
Total rate (14 diseases)	137 5	81 0	41	59 5
Total number of deaths	9,826	5,996		4,475

* Average for three years 1934, 1935, and 1936

before the introduction of the sulfonamide drugs, when the average population was 7,153,000, had persisted through 1941, when the population was 7,521,000, 10,341 deaths would have occurred from these 14 cases, instead of the 4,475 that were reported—a difference of 5,866 deaths. Pneumonia deaths would have been greater by 4,025, appendicitis deaths by 534, and deaths from the remaining twelve causes would have been greater by 1,307. It has been noted, in Table 2, that downward trends, or marked irregular variations, occurred in the numbers of deaths attributed to some of these conditions. It is therefore not possible to attribute the whole change to the administration of the sulfonamide drugs. The extent of the changes that followed the introduction of the sulfonamide drugs in these diseases for which the sulfonamide drugs are known to be effective justifies the belief that it is, in part, due to such therapy.

In measles and scarlet fever, it is possible to compare the number of cases as well as the number of deaths for the five-year periods before and after the introduction of sul-

fanilamide, to determine whether the decrease in mortality affected primarily the number of cases, or the number of deaths, or both. Table 4 shows that changes in mortality rates for measles and scarlet fever were due mainly to the decreasing numbers of deaths, since no decrease in the reported cases, comparable to the fall in the death rate, occurred. The case fatality rate for measles was 83 per cent less in the five years beginning in 1937 than in the previous five years. The reduction in scarlet fever case fatality rates was 68 per cent. The changes in case fatality rates were progressive during the five years following the introduction of sulfanilamide, and the report for 1941, the latest year for which reports were available, shows the lowest case fatality rate from both of these diseases. Such data are not available for the other tabulated diseases. Hospital reports indicate, however, that the number of cases with mastoid diseases and the number of operations for this condition have decreased. Similar reductions in the numbers of cases may be responsible for a part, or all, of the reduction in mortality in this title, or in other titles for which the total number of cases in the city are not known.

TABLE 4.—REDUCTIONS IN CASE FATALITY RATE OF MEASLES AND SCARLET FEVER FOLLOWING THE INTRODUCTION OF SULFANILAMIDE

Disease	Average for 5-Year Periods		Percentage of Reductions	Current Figures 1941
	Before Sulfonamides 1932-1936	After Sulfonamides 1937-1941		
Measles				
Number of cases	23,325	28,098		79,646
Number of deaths	97	20		25
Case fatality rate	0 41%	0 07%	83%	0 03%
Scarlet fever				
No. of cases	12,731	9,075		7,206
Number of deaths	77	17		7
Case fatality rate	0 60%	0 19%	68%	0 10%

Discussion

In three of the tabulated conditions, it is generally agreed that the sulfonamide treatment is almost uniformly successful and it was expected that marked changes in mortality would be recorded. In erysipelas and meningococcus meningitis, uniformly favorable reports of the results of the sulfonamide treatment have led to general agreement as to the indications for their use and to the expectation that changes in mortality, such as those described, would result. They are

the 14" × 17" paper are all being used for mass surveys. While not so accurate and dependable in all respects, they help greatly in uncovering unsuspected chest pathology. From information thus far available it appears that the 4" × 5" film ranks next to the 14" × 17". Following in order of reliability is the 14" × 17" paper, the 35-mm. film, and the fluoroscope. The errors of these latter methods as compared with 14" × 17" films run from 1 per cent to 5 per cent. The tuberculin test is one way of approaching this problem of looking for tuberculosis, providing that all positive reactors are radiographed.

No tuberculosis control program can be as effective as it should be unless it includes a complete and thorough follow-up system.

A suggested follow-up routine might be:

Age	Retake
18-25	1 year (first time)
	2 years (if pre-employment and first follow-up were negative)
26-30	2 years (first time)
	3 years (if pre-employment and first follow-up were negative)
30-over	
	3 years if negative

Cases that are not included in this routine schedule of follow-up, such as any slightly suspicious films not classifiable, markedly fibrosed, or calcified, or with obviously healed areas, should be checked more frequently, sometimes as often as every month. Contacts should be checked every six months. If three or four successive periodic radiographs are negative and the contact has been removed, the routine schedule could again be followed. Those working on jobs where there is any possibility of hazard (such as exposure to dust, fumes, or vapor) should be checked periodically, usually every six months or every year.

Visiting nurses, calling on all absentees because of illness of over three days' duration, not infrequently bring to the attention of the staff facts concerning the medical history of employees who are absent with an illness that might be caused by or related to tuberculous infection. They should make sure that those employees who are absent from work because they have pleurisy, influenza, or pneumonia are radiographed before returning to work.

Both physicians and nurses must be on the alert constantly. However, such alertness cannot, in itself, discover all the cases of early tuberculous infection which should be discovered.

The administrative details of any tuberculosis control program are of primary importance. Our experience has convinced us that if adequate medical supervision is to be maintained, proper and efficient methods are essential. Accurate bookkeeping is necessary for the early detection of such cases of tuberculosis as may develop and for the control of those arrested cases after their return to work.

Adequate records must be kept to insure the return of employees on the dates recommended for follow-up examination and roentgenogram. A tickler file, maintained by one assistant, is effective as a reminder to send for individuals on schedule for re-examination. Not infrequently failure to establish an early diagnosis or to prevent relapse is due to clerical error or oversight. In supervision of large groups, the most rigid attention to details of record keeping is imperative.

The method of controlling tuberculosis in industry, as discussed above, is more easily and readily applicable to large plants. Wherever the frequent use of radiographs is called for, fairly complete roentgenographic equipment is necessary, and its cost, logically, is more easily absorbed by a large organization. There is no better way of controlling tuberculosis than by the aid of the chest roentgenogram. On the face of it, the cost seems high, but weighed with the cost of taking care of the tuberculous patient where there is no real control, it is not prohibitive. For large groups it is possible to do periodic mass surveys at relatively little per capita cost. The valuable results unquestionably justify the investment.

For the smaller plant of several hundred employees, of which we have a large number in this country, the problem is quite another matter. So far as chest roentgenographic facilities are concerned, this can be done economically only if one of the following schemes is pursued:

(a) A group of plants in a neighborhood can set up a medical service of their own which will periodically provide a chest roentgenogram service. Either a portable outfit would be necessary or some convenient central location could be chosen for a medical department. Joining together in such a plan would probably be the most economical arrangement for each industry.

(b) In some industrial communities physicians have occasionally established a medical service for small employed groups. It is seldom carried out within the plant, but at a central dispensary. This, of course, has its disadvantages inasmuch as employees have to

THE ROLE THAT INDUSTRY CAN PLAY IN THE ELIMINATION OF TUBERCULOSIS

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IN A summary of a "Symposium on Tuberculosis in Industry," held at the Saranac Laboratory in June, 1941, Dr. Leroy Gardner states that the prevalence of tuberculosis in any community or group is determined by the general standard of living and by the number of open carriers. He continues: "It is accepted that the source of the great bulk of infections is a human carrier with a pulmonary cavity. From the public health standpoint the objective is early detection of these carriers, segregation and closure of their cavities. . . . While the home is probably the place of most childhood and some adult contacts, *many primary and more reinfections must occur in the place of work.*"

Obviously, industry has a responsibility in the elimination of tuberculosis. We all know that finding tuberculosis is a question of looking for it. Industry can look for it on a large-scale basis. Machinery for routine examinations of apparently well individuals can be, and in some industries has been, set up with extremely gratifying results. In the Metropolitan Life Insurance Company, with its 14,000 employees, during the last thirteen years new infections at all ages have steadily declined, from 56 in 1928 to 13 in 1940. In the Eastman Kodak Company the incidence of tuberculosis has been reduced from 2.3 per cent in 1921 to 0.5 per cent in 1941. This has been accomplished by radiographs at the time of employment and periodic follow-up films during employment.

The "Symposium on Tuberculosis in Industry" held at Saranac Lake concluded that "Aside from nutrition and social-economic factors, silica was the only other factor which had a recognized effect on susceptibility." Many occupational conditions popularly accepted as predisposing to this disease were reported to be without measurable effect.

Such factors as fatigue, temperature, humidity, trauma, fumes, gases, lead and zinc exposure, and organic dust (from grain and tobacco) were reported as having shown no appreciable effect.

It is interesting to note the following figures reported at the Symposium. In 1911 this

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 28, 1942.

Medical Director, Eastman Kodak Company.

disease was the *first* cause of death among wage earners, accounting for 20 per cent of their mortality; today it is *sixth* in importance and is responsible for 6.5 per cent of their deaths.

It will perhaps be helpful at this time to outline a possible program for an industry wishing to take part in the elimination of tuberculosis in its organization and community.

The ideal procedure should include:

1. Chest roentgenograms of all present employees.
2. Chest roentgenograms of all applicants for employment.
3. Periodic follow-up roentgenograms of all employees.

Inability to pursue an ideal program should in no way deter an organization from doing some part of it as a starter. It is not often that full-fledged programs are launched in their entirety. Doing one thing well at the start is enough. The chief point is to have a goal of reducing and controlling tuberculosis and then work toward it step by step.

Obviously, in considering any such program, the first step is to discover the amount of tuberculosis in the present-employed group. This was done by us in the Kodak Company in 1921, at which time 3,280 apparently well adults were examined by means of single chest films and were diagnosed as having either latent or clinically significant tuberculosis. Those diagnosed as positive (2.3 per cent) or suspicious (1.4 per cent) constituted 3.7 per cent of the whole series and were confirmed by subsequent stereoroentgenograms.

The next step is to prevent the possibility of new cases of tuberculosis being added through new employees. This can be avoided by routine roentgenograms of all applicants for employment. In an analysis of 4,640 applicants for employment, examined by this means in the Kodak Company, 0.5 per cent were found to have active or clinically significant tuberculosis.

Consideration can be given to the fact that although 14" X 17" films are considered the most satisfactory and trustworthy method of detecting early and symptom-free tuberculosis, there are other successful and almost as efficient methods.

The 4" X 5" film and the 35-mm. films and

of tuberculosis. He has had long and intensive experience in controlling this disease in one of the large industries of this country. He speaks with authority. It is good to know his views.

The attitude the worker often has toward mass examination of his group for tuberculosis is worthy of repeated emphasis. He forms an important part of industry; so important that at times management is afraid of its own job.

This workingman is greatly interested in health; particularly as it applies to himself, his family, and his community. But to him health is more than freedom from disease; it is also freedom from want and insecurity.

To get this precious all-inclusive commodity for those who are dear to him, he has to pit himself against forces beyond his control—forces that constantly drain his vitality. His side of the fight is as unstable as life itself. On it he has his strength, his skill, an intense desire to care properly and sufficiently for those dependent upon him, and a determination to see through any crisis, no matter how great the cost.

Tuberculosis is one of his strongest and most heartless enemies. It is a foe that endangers family, cuts earning power, and destroys fair dreams. He knows all of this, and he knows there also will be poor provision for the remainder of his family and inadequate rehabilitation—if any.

When he applies for employment, management can, and often does, require him to have a medical examination including a chest roentgenogram. Management may require him to have periodic re-examinations. His attitude toward this medical work will depend on the spirit back of it. If, when disease is discovered, his treatment is sympathetic, the welfare of his family protected, an interest in his return to work shown by word and deed, and, above all, a job saved for him, he will not actively resist the procedure. But let us not fool ourselves; only rarely does he find himself in such an ideal situation.

The degree and amount of education that a worker has make no difference in his resistance to mass examinations. A skilled employee has the same instinctive fear. Professional workers such as teachers voice the same objections.

To make him accept these examinations, he

must feel they are a benefit and not a danger. To be sure, he is interested in good public health in his community. He wants good air, clean water, nourishing food, and milk free from infection, for himself, his family, and each and every one of his neighbors. These benefits he is willing to vote and pay for. But, somehow, tuberculosis is different. He realizes it is best to have none of it around, but he feels it is impossible for him to contract it. The last time he went to his doctor he received a clean bill of health, and has felt exceptionally well ever since.

Obligatory examinations by management are particularly odious if the findings are not to be made available to him. Voluntary examinations by public health agencies, clinics, and hospitals are not so difficult to accept. Those by his own union he knows are conducted in a way to protect his interests, and he finds it easy to support them.

Unions definitely recognize the value of fighting tuberculosis and of discovering it early. But they want the rights of the worker protected and the responsibility for the disease placed against society as a whole. They do not want the worker penalized; they want him and his family cared for adequately until the chapter is closed one way or another. Some unions even insist on a physical examination as a requirement for membership.

Management, by mass examination of its employees for tuberculosis, sees the elimination of some of the unfit from its plant, and the prevention of further spread of the disease. By pre-employment examination, it can prevent many cases from becoming liabilities to the firm. It sees a medical department as a means to higher profits and lower compensation premiums.

We have a willingness for these examinations on the part of all participants—the worker, the unions, management, capital, medical profession, health authorities, and the community. No one argues against their desirability and their value. There are arguments, however, as to the methods to be employed. To meet these, the next step has to be planned around the conference table with all parties present, each one willing to consider and evaluate points of view different from his own, as long as the worker is protected and given a fair deal.

USED AND DISCARDED X-RAY FILMS NEEDED

Bundles for America, as part of its "Salvage for Defense" program, has organized a Salvage X-Ray Division. The Division has the approval of the War Production Board and members of the President's Committee on War Relief Agencies. It is the purpose of this division to collect used and discarded x-ray films (no dental film), and sell them to obtain revenue with which to carry on the work of the organization in supply-

ing the needs of the men in the armed forces.

If you have any used or discarded x-ray film which you may care to donate to Bundles for America, will you please telephone Plaza 5-9100 or write to Bundles for America, Inc., 681 Fifth Avenue, New York City. Your contribution will be called for at your convenience.

(Signed) MRS. ROBERT B. BRADLEY
National Director, X-Ray Salvage Project

travel to the center for their roentgenograms. However, it does provide a control.

(c) A third arrangement is one that could be set up by a local hospital or county tuberculosis sanatorium, with or without the aid of the public health officials. For applicant examinations a visit could be made to the institution. For periodic check-ups a portable outfit would solve the need.

Inasmuch as tuberculosis is a communicable disease and there is great effort being made to bring it under control by 1960, is there any valid reason why public health officials should not put some such plan into effect?

(d) Private physicians in industrial neighborhoods sometimes have facilities that will take care of applicant and periodic roentgenograms. Unfortunately, this type of setup does not lend itself as readily to the convenience of a small plant.

It must be evident from the above that there is no valid medical reason why the control of tuberculosis cannot be carried out for a small group. It is largely a matter of a decision to do the job, using some of the facilities at hand, gradually extending them when necessary.

Now more than at any other time, because of the pressure of work, longer hours, and crowded and unsatisfactory living conditions, there is reason for extra precaution so far as tuberculous infection is concerned, both in large and small industries. Many individuals will have to be employed whose health is substandard and who should be considered more susceptible to such infection. Therefore, there should be more effort made to extend and maintain proper health supervision, especially in regard to the detection and control of tuberculosis.

Discussion

Dr. B. L. Vosburgh, *Schenectady, New York*—Dr. Sawyer has told you what part industry can play in combating tuberculosis. He has described the methods used at the Eastman Kodak Company and I am sure you have been impressed with their success. When their tuberculosis incidence has been reduced from 2.3 per cent to 0.5 per cent it has not happened by mere chance. Such an accomplishment represents the culmination of masterful planning, a great deal of persistent effort, and the vision of worthwhile spending.

In discussing this paper, I shall make three points:

1. Some lung field-inspection method is needed in industry.
2. The working environment is implicated.
3. There is a public health lesson to be learned.

You will recall that Dr. Sawyer explained in some detail the plan in operation at his industrial plants—namely, an x-ray of the lungs of every applicant when he is engaged and then periodically (according to age and condition).

Other good visual field methods are the 4" X 5" photograph of the fluoroscopic image, the 14" X 17" paper film, the 35-mm. photograph, and the fluoroscopic image itself. These methods are listed in the order of their efficiency. They lend themselves admirably to the search for minimal tuberculosis.

The Metropolitan Life Insurance Company has asked recently, "What are the signs and symptoms of early tuberculosis?" Their answer is, "There aren't any." At first that answer is a bit shocking. The medical textbooks used to list quite a few signs and symptoms under this heading. For example, cough, slight expectoration, slight loss of weight, slight afternoon fever, etc. Now we know that they were the story of moderately advanced disease. We know also that by the time patients consult their physicians because they are ill with pulmonary tuberculosis, only rarely can the disease be classified as an early case.

Dr. Sawyer has presented a set of conservative figures representing the cost of curing the various stages of tuberculosis. The curve rises sharply when minimal disease has gone on to advanced pathology. And let us not lose sight of the fact that increased costs simply parallel prolonged suffering and greater losses in manpower.

Industrial manpower is being conserved more and more by our greater knowledge of engineering and medical control of silicosis. This is pertinent here, as the speaker has pointed out, because more silicosis invariably means more tuberculosis. On the other hand, it has been shown quite clearly by Gardner and others (and this is important, too) that dusts other than silica dust are relatively harmless as agents predisposing to tuberculosis. Employers on jobs that do expose workmen to silica dust are now recognizing their responsibility to reduce the dustiness to a safe concentration and to x-ray the lungs of all exposed workmen both when they are hired and at regular intervals thereafter.

If some industries have been x-raying or visualizing the lungs of all workmen regularly and by these methods have been able to reduce their tuberculosis rates almost to an irreducible minimum, and if it is true that there aren't any signs and symptoms in early tuberculosis, then it seems to me there is a public health lesson to be learned. The entire public should be educated to have their lung fields inspected at regular intervals. It only remains for the master minds in public health to perfect a plan of procedure that will fill the bill.

Dr. Ezra Bridge, *Rochester, New York*—Dr. Sawyer's paper gives a broad, clear view of the role that industry can play in the elimination

contributed to the lack of tuberculin testing, have been overcome since the reliability of the "patch test" has been established.

The decline in the death rate from tuberculosis in upstate New York from 74.6 per 100,000 population in 1926 to 33.7 in 1940 is most gratifying. This is not only a reflection of the improved social and economic conditions but is also a tribute to the able and efficient administration of our State Department of Health. However, in appraising the present figures, circumstances as they now exist make any forecast of the future difficult. The radical changes which have occurred in our social existence during the past few months may adversely affect the continued decline in tuberculosis. Unless the present tempo of tuberculosis control is accelerated, the increased physical strain to which so many are being subjected may easily result in an increase in the incidence of the disease.

Many possible sources from which the disease may be spread to healthy contacts are still existent. If they are investigated effectively, the incidence of tuberculosis can be reduced to meager proportions. Mass x-ray examination of those living in sections that have a high incidence of the disease is always productive of new or fresh cases. This is a public health procedure and of necessity should be carried out by health authorities. The private physician, however, can also be of material assistance if he attacks the problem in his own practice. He should start with the individual family. In adults an x-ray examination of the chest should be as much a part of any periodic health examination as a urinalysis, a blood count, a blood pressure determination, or a blood Wassermann. It might prove to be even more informative. Along with the Schick test and other routine procedures, the "patch test" for tuberculosis should be included every few years, as part of the yearly check-up in children. It, also, will be informative. Positive reactors should be x-rayed subsequently to determine the phase of tuberculosis that is existent.

Tuberculin testing as part of a complete examination is a matter of routine in most children's hospitals. Many important clues in tuberculosis control are unearthed through this procedure. In general hospitals, however, only the occasional adult has a chest x-ray as part of his general examination. During the course of a year in the wards of a general hospital, there must be many cases

TABLE 1.—TUBERCULOSIS AMONG TEACHERS—1936

	Number Studied	Cases of Pulmonary Tuberculosis	Incidence of Pulmonary Tuberculosis
New Haven, Conn.	259	5	1.9
Macon County, Ill.	705	19	4.1
Minneapolis City Schools	3,580	69	1.9
Minnesota Rural Schools	922	17	1.8
Bellingham, Wash. State Normal School	450	8	1.7
University of Pennsylvania, School of Education	150	3	2.0
Total	6,066	131	2.15

of early tuberculosis that escape detection because of the omission of a chest x-ray.

One of the most encouraging features of the entire program of tuberculosis control has been the subject of tuberculosis as a school health problem. Large groups of apparently well students have been examined by means of the tuberculin test and chest x-ray. During the school year of 1940-1941 more than 200,000 college boys and girls were examined in this manner. This, in addition to being an excellent public health measure, is an educational project of the greatest importance. It is a lesson in public health which stresses the significance of tuberculosis and its control and should result in saving many lives.

There is still existent an important phase of tuberculosis as a school health problem which has not been attacked as assiduously as possible. Very little is being done to protect the student from possible exposure to the teacher who has active tuberculosis. Lees⁴ reports that the incidence of tuberculosis in teachers, the majority of whom are in that age group in which tuberculosis takes its greatest toll, is about 2.15 per cent (see Table 1). It is estimated that there are nearly a million teachers actively employed in the schools in the United States. It is, therefore, fair to assume that there are approximately 20,000 teachers with active tuberculosis who are in our schools and in daily contact with children. It is a potent source from which the disease may be spread. The contact between the child and the tuberculous teacher is quite analogous to exposure to the disease in the home. There is ample evidence to show that the incidence of tuberculous infection of children in a class taught by a teacher with the disease may be several times greater than the average rate for the community. Only twenty states have definite laws that require teachers to have yearly examinations including an x-ray, or a tuberculin test and an

CONTROL OF TUBERCULOSIS IN CHILDREN BY PREVENTION OF ITS SPREAD THROUGH CONTACT

WILLIAM J. ORR, M.D., Buffalo

ONE of the great tragedies of tuberculosis is that the new recruits who are taken into its army are drafted so frequently from the youth of our nation. Tuberculosis has done more to undermine the manpower of our country than any other single disease. Although it no longer ranks first on the mortality lists as a cause of death, it still exacts a greater toll of victims between the ages of 15 and 25 than any other malady. It is generally considered a disease of adult life. It must, however, be pointed out that in many instances the infection was acquired during childhood even though the active disease did not become manifest until late adolescence or early adulthood. Every year thousands of children become infected with tuberculosis through contact with adults who have the disease. Rarely is it spread by children. These remarks are not new. They are familiar to all of us. Yet, year after year, the same vicious cycle in the spread of the disease continues to occur. It is equally well known and apparent to all of us that if we intend to control tuberculosis by prevention of its spread through contact, one of the most effective means is safeguarding the child population from exposure to the disease. The soundness of this statement cannot be questioned. Veterinarians, in the eradication of bovine tuberculosis, have set an excellent example. Cattle are now born and live in an environment free from the disease. Certainly we should provide the same opportunities for our children.

The ultimate fate of a child with primary tuberculosis is still a controversial subject. Wallgren¹ and Levine² state that children under 6 or 7 years with positive tuberculin tests and no clinical tuberculosis are not rendered more susceptible to reinfection tuberculosis from an exogenous source. Opposing these views, Ch'ui, Myers, and Stewart,³ in a follow-up for a period of ten years of 446 children with positive tuberculin reactions and no clinical pulmonary lesions compared with 772 children who had negative reactions, report that the incidence of reinfection tuberculosis in the group of positive reactors was nine times that which occurred

in the negative reactors. The ratio of the mortality for the positive reactors and the negative reactors was 38 to 1. The average age at the first examination for the positive reactors was 7 years and for the negative reactors was 6.6 years. It is also generally agreed (except in infancy and very early childhood) that most children successfully resist their first infection of tuberculosis, and usually no serious consequences develop in later life. Nevertheless, it should be remembered that the disease may and does spread from an endogenous source as well as from an exogenous one. Regardless of the existent divergencies of opinion, there is one fact which is absolutely indisputable, and it should be driven home. There can be no tuberculosis without the presence of tubercle bacilli.

An existent fallacy which has helped to confuse the problem of tuberculosis control is that primary tuberculosis acquired during childhood is almost to be desired, as it renders an immunity to any future manifestations of the disease. Some of the indifference and complacency regarding the problem of childhood tuberculosis may be attributed to this erroneous impression.

Many private physicians fail to appreciate fully the value of tuberculin testing as an aid in diagnosis and also as a screen with which the tuberculous and nontuberculous population may be separated. There are a great number who never employ it. Others doubt its value or use it only occasionally. Very few, indeed, ever give it general usage. The tuberculin test is a highly specific diagnostic procedure. Its widespread use should serve as a valuable weapon in the eradication of tuberculosis. Physicians throughout the country should be encouraged to use it more frequently in their practice and in public health work.

A positive reaction is not only a diagnostic aid, but it may also indicate that someone in the immediate environment of the patient has active tuberculosis.

In the past, a supply of freshly diluted tuberculin was not always available to the physician, and the public frequently objected to the injection of a tuberculous-like substance. These difficulties, which may have

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 28, 1942.

under the fluoroscope, an x-ray of the chest is made.

5. Sputum examination.
6. Smear for gonorrhea.
7. Suspicious smears are followed by a culture for gonococci.
8. A blood test for syphilis.

Ninety per cent of all examinations are done by the Department of Health without charge. In a communication from Dr. Exner, he stated that during 1941 they discovered 30 new cases of tuberculosis. He further stated that the ordinance had met with little or no opposition in the community.

Early in 1941 the Tuberculosis Association of Washington, D.C., approached the problem of x-ray examination of domestic employees. Physicians, churches, insurance companies, employment agencies, employer groups, public health nurses, clinics, and others cooperated in the educational program. During this time, radio programs were presented, and the newspapers carried complete stories on the project. Civic clubs, luncheon clubs, etc., were appealed to with three-minute speeches on the subject. An advisory committee, similar in nature to the one now established in New York State, supervised the campaign. Examinations were made of 357 individuals, from which 20 cases of active tuberculosis were discovered. Detroit, St. Louis, Minneapolis, Montreal, and other cities have also conducted educational programs which have been successful in discovering new cases of the disease. Similar campaigns should be conducted throughout the United States, not only for their importance as a public health measure, but also for their educational value. They serve as an excellent medium through which the general public may learn of the ways and means of protecting themselves from exposure to tuberculosis. Physicians must be taught that a thorough physical examination must be supplemented with a tuberculin test and an x-ray examination of the chest if they are to rule out tuberculosis.

Almost always, it is the adult with active tuberculosis who sows the seed that frequently finds its soil in the child population, who in turn represent the harvest when they reach adulthood.

We in New York State are well organized to conquer tuberculosis. The campaign is now under way. Let us keep moving toward the goal: "No Tuberculosis by 1960."

Reference

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3. Ch'ui, P. T. Y., Myers, J. A., and Stewart, C. A.: *J.A.M.A.* **112**: 1306 (April 8) 1939.
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Discussion

Robert E. Plunkett, *Albany*—Dr. Orr has stressed a fundamental point in discussing the public health aspect of tuberculosis. He states that an offensive rather than a defensive program is necessary. I would qualify that statement by saying that we must build up a better defensive service and augment it with an all-out offensive program.

If infection and reinfection are to be prevented—and this is essential in controlling any communicable disease—it is necessary to find the cases, or foci, and to segregate, treat, and educate patients who have the disease.

While it is necessary to continue placing emphasis on the importance of examining contacts as a case-finding measure, this alone will not bring about the desired results. After twenty years' experience in conducting consultation chest clinics, we find that the yield of new cases of tuberculosis is practically the same among patients referred by physicians because of the presence of symptoms or some other indication of the need for a chest x-ray as it is among contacts. This yield varies with the ages at which patients were examined for the first time at our state tuberculosis hospital clinics. In the age group 15–24, the average percentage yield for the past three years among contacts was 2.6 as compared to 1.9 among the others referred by physicians. In the age group 25–44, the respective yields were 3.8 and 3, while among those 45 and over the yield was 4.7 for the contacts as compared to 5.9 per cent among the others. The yield for all ages over 15 was 3.7 for contacts and 3.4 for non-contacts. Moreover, quoting Dr. Ralph Horton, the yield among contacts with symptoms is greater than the yield among contacts without symptoms.

Among the lessons to be learned from this experience is the realization that we must urge physicians to be more and more alert to the possibility of tuberculosis, not only in contacts but particularly in patients presenting symptoms. These persons should have the benefits of x-ray and sputum examination without delay.

Should we achieve the optimum in this consultation type of service, there would still be left in every community many hidden cases of tuberculosis. To discover these cases is even more the job of the health department, and a more offensive type of attack is indicated. We must not wait for these persons to go to the doctor or the clinic; this service must be brought to them. In other words, health departments must carry on a vigorous campaign of case-finding in all sections of the population in which the disease may be lurking and insidiously waiting for an

TABLE 2.—DEATH RATES PER 100,000 FROM TUBERCULOSIS OF RESPIRATORY SYSTEM OF 11,082,110 GAINFULLY OCCUPIED MALES, 15-64 YEARS OF AGE, BY BROAD AGE GROUPS, ACCORDING TO SOCIAL-ECONOMIC CLASS AND COMPONENT OCCUPATIONS

(10 Selected States, 1930)

Social-economic Class and Component Occupations	Rates Age Groups			
	15-24	25-44	45-64	15-64
Professional men	11.9	28.6	31.6	28.3
Proprietors, managers, officials	37.8	38.2	55.4	44.8
Clerks and kindred workers	39.7	67.6	79.9	62.4
Servants, hotels, restaurants, boarding houses, etc.; other domestic and personal service				138.3
Waiters				169.8
Cooks				172.2
Unskilled workers	95.7	193.5	229.3	183.1

x-ray, to rule out the possibility of the disease. In other states, only local rulings affect this problem. There are, however, many communities in which tuberculin testing and x-rays play no part in pronouncing teachers free from tuberculosis. Some large centers require an examination of student teachers and a certification of health for teachers renewing their licenses. This is obviously inadequate. A single pronouncement of good health may easily establish a false sense of security in an individual. As a result, later on, warning signs of ill health are apt to be disregarded. It is difficult to offer an effective solution for the problem of annual health examinations of school teachers. There is only one answer. It should be done. There are, however, two points of view as to the proper method of approach. Some authorities advocate the enactment of compulsory legislation. This, perhaps, is the logical and ultimate solution, as the danger would be eliminated quickly and on a large scale. There are others who advise an educational program which would popularize the procedures in the individual community and eventually lead to the enactment of regulations generally. Perhaps the same goal may be attained by either method.

Data collected in 1930 indicated that the incidence of tuberculosis was greatest in individuals engaged as cooks, waiters, food-handlers, and domestic servants (see Table 2). Although the death rate from tuberculosis in these respective groups has undoubtedly fallen during the past twelve years, that unquestionably represents one of the most important sources from which tuberculosis is spread. A large percentage of these people are employed in private homes where they have intimate contact with the members of

the household, especially with the children. Yet, despite this vital information which is now twelve years old, only a surprisingly few communities have made any effort to correct, effectively, this situation. Why this has not been done is one of the enigmas of tuberculosis control. The project should rank among the first for consideration. It has been reported that from 5 to 10 per cent of individuals in these component groups have active tuberculosis. A food-handler is examined for rashes, gonorrhea, and syphilis; a stethoscopic examination is done on the chest, but rarely is any attempt made to certify that the individual is free from active tuberculosis by having an x-ray examination of the chest. Active tuberculosis is equally as communicable as the conditions mentioned would indicate and should be ruled out.

A domestic when seeking employment in a private home must produce references pertaining to her morals, her ability to cook, serve, assume other household responsibilities, and, if necessary, administer to the needs of the children. If these are lacking or subject to question, the chances of her finding a position elsewhere are extremely poor indeed. Every housewife expects these qualifications of any applicant, but practically never does she inquire into the health of the job-seeker and ask for a medical certification that no communicable diseases are present. Again, there are two avenues of approach by which this problem may be effectively attacked: one is legislation and the other is education. New-ark has an ordinance requiring the examination of all domestic employees, which has been in effect since 1930. It states that no person shall work as a domestic servant, nor shall any person, firm, or corporation employ any person as a domestic servant unless such person has filed with the Department of Health a medical certificate stating that such person is free from tuberculosis and other contagious or communicable diseases. A certificate of good health is issued to the applicant, and it is effective for six months. At that time the person must be re-examined. Any person or firm violating this ordinance is subject to a \$25 fine for the first offense and \$50 for each subsequent offense. The following procedures are included in the routine examination:

1. A general inspection of skin, mouth, throat, nose, etc.
2. A stethoscopic examination of the chest.
3. A fluoroscopic examination of the chest.
4. When suspicious findings are observed

SULFONATED HYDROGENATED CASTOR OIL AS A DETERGENT AND OINTMENT BASE

SHEPARD QUINBY, M.D., and GEORGE W. FIERO, PH.D.,* Buffalo

SULFONATED oils have long been used industrially, but it is only in recent years that their dermatologic significance has been studied. Early workers have reported them to be irritating, but it is now known that this irritating action was the result of using a technical product which was not specially prepared for medicinal purposes. Sulfonation (or, more correctly, "sulfation") of oils is accomplished by a reaction between unsaturated oils and sulfuric acid. Failure to remove or neutralize the excess acid and other impurities, as well as the use of these oils in too concentrated a form, may be the chief causes of the irritation previously reported.

The principal dermatologic use of sulfonated oils has been as detergents in those cases of dermatitis in which soap was considered to play an important causative role. Sulfonated oils were recommended by Blank,¹ Lane and Blank,² and Jordan, Dolce, and Osborne.³ They have been found to defat the skin and leave it too dry. This is overcome, however, as pointed out by Blank, by reducing their concentration through the addition of liquid petrolatum. Sulfonated oils have the disadvantage of being liquids and not producing a lather.

Eczematization caused by soaps has been reported by many investigators, and it is commonly met with in both industrial and household cases. Soap solution is always alkaline because of the hydrolysis of the weak fatty acid by the strong alkali. Doubtless this alkalinity, if not a primary irritant, paves the way for the allergic or irritating action of the other fraction of soap—namely, that of the lower fatty acids. Blank has shown that the lower fatty acids are more active sensitizers than are those of higher molecular weight. However, lower fatty acids are quite important in commercial soaps since they produce greater lather, particularly in hard water, than do the higher fatty acids.

Soap substitutes employed today are of three types: (1) untreated vegetable or mineral oils, (2) sulfonated oils, and (3) the newer

wetting-agents. The use of untreated oils is unsatisfactory in that they are not active detergents, cleanse only mechanically, and are unpleasant to use. Jordan, Dolce, and Osborne report favorably on new wetting-agents—lauryl sulfoacetate and aryl alkyl sulfonate. Other wetting-agents have been suggested, such as sodium lauryl sulfate. These substances are solids, produce a lather, and are active detergents. They possess the disadvantages, however, of defatting the skin, and when used in the higher concentrations they apparently have a relatively high index of sensitization.

Sulfonated, hydrogenated castor oil⁴ (hereinafter abbreviated "SHCO") differs from all other sulfonated oils. Catalytic hydrogenation of most vegetable oils results in the production of a solid containing chiefly stearin (glyceryl stearate) with very small amounts of lower fatty acid/glycerides, such as palmitin and myristin. Castor oil, however, differs from the other commercial vegetable oils in that it contains chiefly ricinolein instead of olein, linolein, etc. Ricinolein, unlike olein and other fatty acid glycerides, possesses a hydroxyl group. It is this difference in chemical composition which gives castor oil its peculiar properties. Hydrogenation of castor oil produces hydroxystearin instead of stearin. Thus hydrogenated castor oil is entirely unlike other hydrogenated oils—physically, chemically, and pharmaceutically.⁵ It has a much higher melting point (86 vs. 63 C.), has unusual solubilities, differs in consistency, and, because it possesses the hydroxyl group, is capable of sulfation. Its molecular weight being much higher than that of other hydrogenated oils (hydroxystearic acid 300.24; stearic acid 284.24), it should result in a lower index of sensitization. This assumption is substantiated by Blank's investigation of various fatty acids in which he seldom found sensitization with ricinoleic acid.

Sulfonated hydrogenated castor oil,† unlike other sulfonated oils, is not a liquid, but a soft solid, possessing the following characteristics:

Melting point	41.5 C.
Softening point	30.0 C.
SO ₃ content	10.0%

† Manufactured by National Oil Products Company, Harrison, New Jersey.

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 28, 1942.

From the Department of Dermatology, University of Buffalo School of Medicine and the School of Pharmacy.

* By invitation.

opportunity to assume the offensive against the individual, the family, and the community. Industrial workers, domestics, and members of families in the lower economic brackets of our social structure are the most vulnerable subjects among whom to carry on such a campaign.

If we are to obtain appropriate segregation of more tuberculosis cases in hospitals or sanatoriums, we must develop a more direct attack against the social, industrial, and economic factors which are constantly contributing to the spread and the development of the disease. Problems of housing, job security, and family security (especially when the wage earner is stricken) are some of the fundamental influences which must be combated. The taxpayer is paying dearly because of complacency and indifference regarding this problem. No cheaper or better public health insurance can be bought than through the expenditure of more public funds to provide the all-out essentials for case-finding, hospitalization, and domiciliary control.

Positive methods in dealing with tuberculous lesions are becoming more conspicuous in our therapeutic program. Surgical measures which basically are active and positive forms of treatment are more and more being used to augment

the passive expectancy form of treatment usually embracing only bed rest and good food.

May I close by quoting from the paper read at the 1910 annual conference of sanitary officers of New York State by Mr. Charles Fetherolf, at that time a member of the staff of the New York State Department of Health:

"The struggle against tuberculosis must be a struggle against the sweat-shop, crowded tenements, long working hours, small wages, and against everything that tends to reduce one whit the sum total of human happiness. Therefore, the fight against tuberculosis means progress, for progress is truly measured by the increase of human happiness. . . .

"The campaign against tuberculosis is a campaign for popular education that must reach all. Official action is urgent, but it awaits its master—the public."

Let us, therefore, use to the fullest every possible method of informing the public regarding the prevention of this disease. Health departments through education, practice, and demonstration—practicing physicians by clinical practice and participation—related agencies through cooperation, can, when working together, succeed in routing this disease.

Prize Essay

THE Lucien Howe Prize will be open for competition at the next Annual Meeting of the Medical Society of the State of New York, May 3, 1943, in Buffalo, New York. This prize of \$100 will be presented for the best original contribution on some branch of surgery, preferably ophthalmology. The author need not be a member of the Medical Society of the State of New York.

The following conditions must be observed:

Essays shall be typewritten or printed, with the name of the prize for which the essay is submitted, and the only means of identification of the author shall be a motto or other device. The essay shall be accompanied by a sealed envelope having on the outside the same motto or device and containing the name and address of the writer.

If the Committee considers that no essay or contribution is worthy of a prize, it will not be awarded.

Any essay that may win the prize automatically becomes the property of the Medical Society of the State of New York "to be published as it may direct."

All essays must be presented not later than March 1, 1943, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 292 Madison Avenue, New York City.

CHAS. GORDON HEYD, M.D., *Chairman*
Committee on Prize Essays

the other hand, hydrophilic ointments have the practical advantage of absorbing these secretions. Unlike lanolin or cholesterol-petrolatum ointments which produce water-in-oil emulsions, sulfonated hydrogenated castor oil-petrolatum ointments produce oil-in-water emulsions. The distinction is of great importance, since it is well known that water is more readily absorbed by an emulsion where it is the continuous phase (oil-in-water) than where it is the discontinuous phase (water-in-oil). Moreover, water would be more readily evaporated into the air from an oil-in-water emulsion than from a water-in-oil emulsion.

Pharmaceutically, sulfonated hydrogenated castor oil ointments were found very easy to prepare, with few (if any) incompatibilities. Substances which are often difficult to incorporate, such as tars, balsam of peru, salicylic acid, etc., may be readily incorporated into this base. It was used as a base for all of the official ointments and many unofficial preparations without encountering a single incompatibility.

The emulsified preparation was likewise found to be an excellent vehicle. The following substances were incorporated and made very satisfactory ointments: ammoniated mercury, belladonna extract, Burow's solution, benzoic acid, boric acid, calomel and colloidal calomel, calamine and neocalamine, camphor chrysarobin, coal tar (crude and washed), oil of cade (juniper tar), rectified oil of birch tar (oleum rusci), phenol, pine tar, red oxide of mercury (cinnabar), resorcinol, sulfadiazine sulfanilamide, sulfathiazole, sulfur, zinc oxide, etc. Like most emulsified ointments, it was not compatible with high percentages of salicylic acid.

Laboratory experiments using the FDA agar-plate method were carried⁸ out to compare the bacteriocidal property of antiseptic ointments prepared from the official base SHCO, SHCO and petrolatum, and the emulsified base. While in all instances the addition of SHCO resulted in a more highly efficient antiseptic ointment, those ointments prepared with the emulsified base were the most effective.

The use of wetting-agents in ointment bases has been suggested. There is considerable controversy as to their value. It has been demonstrated that much greater penetration is obtained when an active wetting-agent is incorporated into an ointment. It is questionable if this is desired in most skin disorders. Certainly it should not be recom-

mended for all ointments. Making the keratin permeable reduces its normal protective function and probably would make the skin more vulnerable to allergens. This is particularly true if the medication happens to be a substance with a relatively high index of sensitization, such as mercury. If sensitization is obtained in an ointment of extremely low penetration, such as petrolatum, one would anticipate not only a greater incidence but a much more severe and prolonged reaction if the allergen were used in an ointment of deeper penetration. It is possible that the allergic action of soap is partially due to the fact that soap is an excellent wetting-agent and may thus make the skin more permeable to the allergenic lower fatty acids. Sulfonated hydrogenated castor oil possesses very mild wetting properties. Laboratory tests employing the standard wool yarn wetting properties indicate that a 2 per cent solution requires 250 seconds to wet, whereas a similar solution of soap wets in 2.5 seconds and an 0.5 per cent solution of Aerosol OT wets it instantly.

Summary

Sulfonated hydrogenated castor oil was found to be an excellent ingredient of detergents and ointments. Patch tests on 100 patients and clinical observations of its use on 300 cases indicate that it has a very low index of sensitization. An emulsified cream is recommended as a detergent and ointment base. A mixture of sulfonated hydrogenated castor oil and petrolatum forms a hydrophilic ointment base which is compatible with practically all medicaments.*

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* A discussion of this paper and Dr. Sharlit's, by Dr. Traub, appears on page 161.

pH (5% solution)
Color

6.0-6.3
pale straw

The melting and softening points make it quite satisfactory for application to the skin. The pH is extremely important since it coincides with the pH of the skin, as reported by several investigators.⁶

The early clinical use of the product as a soap substitute revealed that while it did not prove irritating and its detergent properties were satisfactory, it did possess the disadvantage of having a sticky consistency. Unless thoroughly removed from the skin by the liberal use of water, it left the skin so sticky that its use as a detergent was psychologically unsuitable. To overcome this objection, various diluents, such as carbitol, glycerin, petrolatum, liquid petrolatum, vegetable oils, etc., were used.

The most satisfactory means of overcoming this objectionable feature of the soap substitute is in the utilization of its properties as an emulsifying agent. Satisfactory emulsions were obtained by using petrolatum, glycol esters, and water. As a result of investigating forty-five such preparations,⁷ the following formula was evolved:*

Sulfonated hydrogenated castor oil	20%
Diethylene glycol monostearate	10%
White petrolatum	30%
Water	40%

The resulting emulsion is a white cream with a consistency approximating that of cold cream. Although it contains petrolatum, it is not excessively greasy and is free from the original sticky quality.

The clinical use of this preparation as a soap substitute has been observed in 300 cases, the majority of which belonged to the dermatitis-eczema group (Table 1). While soap was considered to be the causative factor in only a small percentage of the cases, the majority were of such a nature that it was thought that the continued use of soap would prolong the irritation even though the direct cause had been eliminated. In evaluating the use of this product in these cases, three factors were borne in mind: (1) Was it irritating? (2) Was it a satisfactory detergent? (3) Was the product psychologically agreeable to the patient?

In only one of the 300 cases was a distinct sensitivity observed. This was in a boy 10 years of age who had a low-grade dermatitis

* Marketed as *Dermalav*, Dermal Products Company, Buffalo.

TABLE 1

Dermatitis venenata	217
Atopic dermatitis	22
Infantile eczema	30
Seborrheic dermatitis	8
Psoriasis	10
Puritus ani	6
Aene vulgaris	7
Impetigo	4
Ichthyosis	2
Dermatitis medicamentosa	2

of the face. A few patients in whom irritation had been noted from the use of other sulfonated oils or wetting-agents were able to use this product with impunity.

Patch tests with sulfonated hydrogenated castor oil, undiluted and diluted as recommended above, were carried out on 100 routine hospital patients. These tests were applied on apparently normal skin of the upper back and were left on for forty-eight hours. In only one case was a positive test observed. This patient reacted to undiluted SHCO and the emulsion. So far, our experience indicates that sulfonated hydrogenated castor oil is not irritating and that it possesses a low sensitizing index.

Judging from its practical use, its detergent properties compare favorably with those of other sulfonated oils. Since the emulsion is of creamy consistency, its use as a substitute for shaving soap was found to be excellent in those cases of dermatitis involving the face. When used as a detergent on the scalp, it was readily washed out and, unlike soap, did not leave the scalp objectionably free from oil. The property of leaving a trace of oil on the skin seemed to be especially helpful in protecting the skin against chapping which often results from the use of soap in the winter months.

Use as an Ointment Base

Being miscible with water, sulfonated hydrogenated castor oil has been found to be an excellent component for ointment bases. Used alone, it is quite sticky and therefore desirable only when such adhesiveness is indicated. Its greatest use is with petrolatum, with which it makes an excellent nonsticky ointment base when used in quantities of 25 to 50 per cent. The resultant ointment is hydrophilic and may be readily washed from the skin with water. Being a hydrophile ointment, it is particularly indicated where there is excessive perspiration or serous discharge. When a hydrophobic, petrolatum ointment is used in such cases, it not only tends to dam back secretions, but the aqueous fluid also tends to form a barrier to the ointment. On

The hydrophilic oils are more acceptable substitutes, although they, too, are found irritating to skin in some cases, and are not as satisfactory cleansers as soap. Because they are not soap and fail to give the satisfaction that goes with cleansing by a heavy lather emulsion, they will displace soap only when all soaps have proved deleterious and this personal experience or professional advice makes a substitute for soap imperative. This still provides the inspiration to study variations in soap mixtures for at least a partial solution of the "soap problem."

Such a partial solution has been offered in superfatted soap. It is difficult to judge the degree of success achieved, chiefly because in the many products available the amount and character of the superfatting cover a wide range and the investigator is usually in the dark as to the exact nature of the soap mixture studied. Furthermore, some dermatologists assume that superfatting aims at overcoming the excessive defatting of the skin by the detergent action of soap but that it fails in this purpose, since one cannot expect to effect emollient and detergent action at one and the same time. This reasoning implies acceptance of the judgment that the too thorough detergency by soap may cause irritation of the skin. This may be true for the group who complain that soap dries and roughens their skin; at any rate, they definitely represent the ideal test group for the study of soap mixtures in the class of superfatted soaps.

The "soap habit" involves the use of soap in solid form and with good lathering properties, among other things, and the need for maintaining these qualities has effectively restricted variations in the character of the superfatting creams. Definitely, it has kept at a minimum the amount of added oil these mixtures could contain, since the soap must not only be solid but also must have adequate hardness. I feel that most superfatted soaps contain a minimum of added oil and that most superfatting is in the form of grease; by reason of this the complete possibilities of soap as a source of emollient agents has not as yet been canvassed.

Pursuing this idea I enlisted the services of a soapmaker and a satisfactory soap was processed that contained over 10 per cent of free vegetable oil, was safe against rancidity, had excellent lathering properties even in hard water, was of satisfactory hardness, and contained a typical fragrance. This soap was tried on the group, chiefly women, who

TABLE 1.—DIALYSIS EXPERIMENTS WITH SOAPS
(Using "Gut" and Collodion Bag Membranes)

Soap Sample	pH of 1% Soap Solution in Distilled Water	pH of Diffusate After 1 Hour of Dialysis	pH of Diffusate After 18 Hours of Dialysis
Laundry 1	10.0	10.0	10.0
Laundry 2	9.0	8.5	8.5
Laundry 3	9.5	7.5	9.0
Laundry 4	10.0	10.0	10.0
Toilet 1 (S)*	9.5	7.5	7.5
Toilet 2	9.2	7.5	7.5
Toilet 3 (S)	9.0	7.5	7.5
Toilet 4	9.0	7.5	7.5
Toilet 5 (S)	9.0	7.0	7.0
Toilet 6	9.2	7.0	7.0
Toilet 7	9.0	7.5	7.5
Toilet 8	9.5	7.5	7.5
Toilet 9 (S)	9.5	7.0	7.5
Toilet 10	9.5	7.5	8.0

* (S)—Superfatted.

claimed that the skin of their faces and hands would not tolerate soap. Another dermatologist and I acquired clinical experience with this soap, and the responses from the group on which it was tried were completely satisfactory, though many in the group had tried superfatted soaps and had found them unsatisfactory. The subjects, in expressing satisfaction with this experimental soap, were impressed by its oily content and with the emollient action therefrom.

On the basis of its content, this experimental soap may justly be called "oleaginous soap," in contrast to "superfatted soap." It is evident to me from this experience that much can yet be done by way of soap to help solve the "soap problem."

Discussion

Dr. Eugene F. Traub, *New York City*—Perhaps because of my long association in dermatology at the University of Vermont where "winter" eczema is decidedly prevalent, I was one of the first to gain some publicity as an advocate of less frequent soap-and-water bathing. None of us could fail to observe that most eczematous eruptions, regardless of their causation, were generally worse in the winter or cold weather and would clear up practically entirely in the summer. Undoubtedly, many factors contribute to such a condition, including the drying effects of steam heat, extreme changes of temperature between the out-of-doors and indoors, the sensitizing action of fungus infections, and, lastly, the deleterious effects of soap and water.

As Dr. Sharlit has indicated, most soaps have a pH somewhere between 9 and 10. From experiments performed by Blank and others we learn that there are two chief irritating factors resulting from the hydrolysis of soap. The alkalinity, if not a primary irritant, at least may pave the way for an allergenic action of the fatty acids. The chemical character of water must also be considered because soaps are not infrequently modified, especially through the increase of lower fatty acids, to produce more lather in hard

SOAP AND THE "SOAP PROBLEM"

HERMAN SHARLIT, M.D., New York City

JUDGING from current publications, soap has come to the fore as a dermatologic problem. While the problem is not new or the result of any recent changes in soap products, efforts at a solution have given rise to the study of soap substitutes and newer soap mixtures. The presentation of these newer products has led to a review of what genuinely constitutes the soap problem.

The overwhelming majority of people, who have healthy skin, find the average toilet soap a completely safe and effective cleanser. But a sizable group, principally among women, find that the use of soap leaves the skin too dry and its surface flaky or irritated. Until now, dermatologists have minimized these complaints and have regarded the group as finicky and the willing victims of cleansing cream sales-promotion activities.

A matter of more concern to the dermatologist is the role of soap in producing and maintaining dermatitis. It is generally accepted that the use of toilet soap occasionally results in dermatitis and much has been written relative to the cause of this dermatitis. Because of a relatively strong cation and weaker anion in their composition, soap solutions are invariably alkaline, and this alkalinity has been regarded as the fundamental cause for the adverse skin reaction in these cases. Using a solution of 1 per cent in distilled water, I have tested many toilet soaps and found them all to have a pH between 9 and 10. This is true for the so-called superfatted soap and for the laundry soap also. However, since this range of alkalinity is too feeble to act as an effective keratolytic during the momentary exposures required for ordinary cleansing of the skin, damage will occur only if the alkalinity is transmitted through the horny surface of the skin to the epithelial layer below. I have attempted to probe this thought by dialysis experiments with soap solutions. The results of these tests are given in Table 1.

Using both "gut" and collodion bag membranes and dialyzing 1 per cent solutions of soap against distilled water, tests on the

diffusates after one hour and also after eighteen hours of dialysis reveal that all toilet soaps fail to communicate the full strength of their alkalinity through the membrane but that laundry soaps have that tendency.

Since clinical experience points to a greater risk of dermatitis from laundry soap, one may continue to suspect, at least on the basis of these tests, that the alkalinity of these soap solutions plays a part in the production of the dermatitis. By the same token, however, we may believe that alkalinity does not enter as a factor in the production of dermatitis from toilet soap. I make these deductions from the tests with full knowledge that the keratin of the skin surface is not completely comparable as a membrane barrier to those employed in the tests. The point I wish to stress is that the risk of damage from the alkalinity of soap occurs only when that alkalinity is made available beneath the horny layer of the skin. Soap manufacturers who boast of the absence of "free alkali" in their toilet soaps should demonstrate by some such test as here recorded the degree of alkalinity liable to diffusion through the horny layer of the skin. I see no good reason for suspecting that a satisfactory laundry soap cannot also be achieved, a laundry soap whose diffusible "alkali" will not exceed that of toilet soap.

The other side of the picture of toilet soap dermatitis is the role that the fatty acids may play in its production. The literature records many cases of soap dermatitis due to sensitization to specific fatty acids in soaps. These soap allergies are in the same category as the disabilities arising from the perfumes in soaps and have been the chief background for the introduction of soap substitutes. Essentially, these substitutes have been of two varieties: wetting-agent compound products and hydrophylic oils—that is, oils miscible with water.

I am strongly opposed to the use of the former type of soap substitutes, on the grounds that wetting-agents are known to increase the permeability of the keratin surface of the skin. One need not dwell on the potential dangers from such a change. The use of this type of cleansing agent would increase the incidence of dermatitis venenata and contact allergies in the group who practice this form of skin cleansing.

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 28, 1942.

From the Skin and Cancer Unit, New York Post-Graduate Medical School and Hospital, Columbia University, New York City.

Clinicopathologic Conference

DEPARTMENTS OF MEDICINE AND PATHOLOGY, NEW YORK POST-GRADUATE MEDICAL
SCHOOL AND HOSPITAL, COLUMBIA UNIVERSITY

Date: June 16, 1942

History

Case (J 49406)

DR. ROBERT McGRATH: This patient was a 46-year-old divorced female who was admitted to the hospital with the chief complaint of a cough of three months' duration. The patient had resided formerly in California. About four months prior to admission, she began to lose weight, dropping gradually from a normal weight of 98 pounds to 82 pounds. This was accompanied by weakness, a hacking cough, and drenching night sweats. The cough had become productive of thick whitish sputum and was associated with pain in the left side of the chest. The temperature spiked to about 102 F. each afternoon. Except for typhoid fever in childhood, her past and family histories were negative. There had been no menstrual period for three months. There were no further suggestive symptoms.

Physical examination showed an undernourished, poorly developed white woman coughing continuously and appearing chronically ill. The temperature was 102 F., pulse rate 104, and respiratory rate 20 per minute. The tongue was coated. Blood pressure was 90/54 mm. of mercury. The heart rhythm was regular; there was a systolic murmur at the base of the heart. Over the left upper lobe of the lungs there was a slight impairment of resonance. The breasts were atrophic with small, firm, freely movable nodules of varying size in each breast. There were no skin or nipple changes. The deep reflexes were hyperactive, but the remainder of the physical and neurological examination was negative.

Laboratory Data.—Urinalysis was normal. The blood count showed a secondary anemia with 41 per cent hemoglobin, and 3,120,000 red blood cells per cu. mm. The white blood count was 84,850 per cu. mm. with a differential of 95 per cent neutrophils, 4 per cent lymphocytes, and 1 per cent monocytes. Several young neutrophils were noted and there was moderate anisocytosis. The blood Wassermann and Kahn tests were negative. The blood chemical studies were entirely within normal limits with the exception of the plasma cholesterol, which was 135 mg. per

cent. An x-ray examination of the chest was normal, except for a generalized accentuation of the pulmonic marking suggesting slight central thickening as well as pulmonary hypervascularity. The hypervascularity was a shade more discernible in the right upper lobe, where slight thickening of the upper septum also existed. A flat abdominal plate gave no evidence of any gross abnormalities but suggested a moderate enlargement of the spleen. A gastrointestinal x-ray revealed, after the patient's ingestion of a contrast meal, a moderate dilation of the upper esophagus with an extensive, multiple nodular intrusional defect fully 4 inches in length, extending from the fourth to the eighth dorsal vertebrae. The lumen of the esophagus was somewhat constricted and deviated to the right, but there was little obstruction to the contrast meal. Examination of the stomach was essentially negative except for displacement by an enlarged spleen. The lower margin of the spleen extended almost to the level of the iliac crest. The liver shadow was prominent. There was hypomotility with moderate stasis and distention of the terminal ileum. Numerous examinations of the sputum failed to reveal acid-fast bacteria. The sputum was never bloody.

During the patient's stay in the hospital her temperature was normal each morning but reached 101 F. to 102 F. each evening. The white blood count remained stationary at a high level with no change in the differential. She was discharged without treatment but went progressively downhill and was readmitted three months later when there was a further weight loss. The fever and cough had continued, and the physical examination was unchanged except for the development of a small subcutaneous nodule on the right side of the abdomen which was about the size of a walnut and dusky red in appearance. It was fluctuant, and necrotic material and pus were obtained on aspiration. The marked anemia and leukocytosis persisted, and the patient went steadily downhill. Shortly before death a palpable mass was noted in the posterior aspect of the right thigh. Death occurred four

water. As you have heard, the lower fatty acids are rather active sensitizers. Undoubtedly, soaps, through their essential detergent properties, remove some of the natural protectant oils of the skin. Dr. Sharlit suggests that damage occurs only from the alkalinity of the soap if transmitted through the horny surface of the skin to the lower epithelial layers. The suggested remedy is a soap preparation containing an excess of oil which would act as a protectant and prevent penetration of irritating properties of the soap and water.

You have heard that the sulfonated oils and wetting-agents, unless specially treated, defat the skin and in higher concentrations have a relatively high index of sensitization (probably owing to their excellent penetration). Doctors Quinby and Fiero have combined a sulfonated hydrogenated castor oil, a wetting-agent with petrolatum and water, and have found such a preparation relatively nonirritating, a satisfactory detergent, and yet psychologically agreeable to the patient. A 5 per cent solution of this preparation has a pH of 6 to 6.3. There can be little doubt that it sounds most reasonable to use cleansing preparations whose pH corresponds closely to that of the normal skin surface, but has it been definitely proved that the minor variations in the pH of average soap preparations are the chief cause of trouble? Incidentally, I believe Dr. Sharlit neglected to state the pH of his soap substitute. According to Pillsbury and Shaffer, the intact skin is able to withstand solutions of pH ranging from -2 (three times normal hydrochloric acid) to pH 12.6, while the response of abraded skin to alkaline solutions up to and including pH 12.6 is no worse than that of intact skin. As far as practical purposes are concerned, since preparations of an experimentally tested pH may, and probably do, have minor variations of pH under different conditions of ordinary usage, we must return to the points on which both clinicians and experimenters are agreed. The skin requires a protectant film of oil or fat. When the natural protectant film has been reduced or removed, the skin is liable to irritation from solutions whether their pH is that of the normal skin or is slightly above or slightly below normal, and it is reasonable to suppose that the depth of their penetration and the sensitizing properties of the detergent solutions play an important role. Since both presentations, in es-

sence, consist in giving us a substitute for ordinary soap, the questions of whether the penetrating effect of a soap irritant is most important, whether the sensitizing effect, perhaps without much penetration, is the thing that counts, or whether it is a combination of both remain relatively unimportant in this discussion. Probably one factor is important in one subject and a different one in the next. Both papers therefore emphasize the same point—namely, the necessity of replacing the natural oily protectant film of the skin as regularly as it is removed by washing. The great question must then be: Can this be done satisfactorily in the one operation? Frankly, I doubt it. If the only factor causing defatting or excessive drying of the skin were the use of the detergent, I believe it might be accomplished. But as I pointed out earlier, there are, in my opinion, many factors that bring this about. However, I do not mean to say that what Doctors Sharlit, Quinby, and Fiero propose is not a valuable step in the right direction. I heartily endorse what they have done and hope they will continue their efforts without being discouraged if they find that the additional use of a grease cream may prove to be a necessity to accomplish the desired purpose.

A word about the use of the emulsified sulfonated castor oil preparation as an ointment base. Undoubtedly, when wisely selected, it should prove to be of great value. For example: I believe that in treating the focus of infection in a case of dermatophytosis, penetration of the antiseptic is essential; the hydrophilic value of such a base should not be forgotten for use, among other things, in oozing and weeping eruptions; it should also make an excellent base to use on the scalp. However, one must remember that with the use of the new base the strength of the various ingredients must generally be much reduced, as 2 per cent salicylic acid will give the full effect of from 5 to 10 per cent in an ordinary ointment base. It is necessary, therefore, to use great caution in evaluating such a base, and none of us should jump to conclusions one way or the other without considerable clinical trial and mature consideration. I wish to congratulate both the contributors for their good work along lines that for a long time have particularly interested me and which cannot fail to be of general interest to both physicians and layman alike.

lymph nodes, are composed of cells similar to those in the primary tumor.

In passing, one should note that unusually high and sustained leukocytoses, although uncommon, are occasionally observed in cases of malignancy.

Pathologic Diagnoses

1. *Squamous cell carcinoma of the esophagus.*

2. Secondary carcinoma of the trachea, regional lymph nodes, and skin.
3. Purulent bronchitis.
4. Lobar pneumonia and abscess on the left side.

Editorial Committee

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NOTES ON SOME MILITARY SURGEONS THROUGH THE CENTURIES

Pedanius Dioscorides, a Greek, who flourished about A.D. 54 to A.D. 68, was army surgeon under Nero (A.D. 37-68)—Nero Claudius Caesar Augustus Germanicus, who was Roman Emperor in A.D. 54-68.

Guglielmo Saliceto, born at Piacenza, Italy (1210-May, 1277), preferred the knife to cautery.

Arnold von Villanova (about 1300), Heinrich von Pfolspeundt (mss. 1460), in his *Bundth-Artzeney* concerned with wounds of war, and Hieronymus Brunschwig, too, deal explicitly with gunshot wounds.

Giovanni Da Vigo (1460-1525) was surgeon to Pope Julius II ("Practica Copiosa in Arte Chirurjica," Rome, 1514); Hans von Gersdorff ("Feldtbuch der Wundartzney," Strassburg, 1517), and Andea Della Groce ("Officina chirurgica," Venice, 1596), who discusses cauterization of wounds in the battlefields, may be mentioned among military surgeons.

John of Ardenne (circa 1306-1309?), physician to John of Gaunt, was the earliest English surgeon, actually getting his training on the battlefields of France in the Hundred Years' War. A skillful operator, he obtained excellent results by cleansing wounds instead of using salves.

Aurelius Cornelius Celsus (circa 25 B.C.-A.D. 40?), a Roman literary gentleman and philosopher and author of "De Medicina" (1478, Florence), probably saw some battle wounds, although he was not a surgeon. He flourished during the reign of Tiberius Caesar (born November 16, 42 B.C.). He gave a special diet for ulcer of the stomach—no acid or acrid substances!

Ambrois   Par   (1510-1590), one of the greatest military surgeons of all time, became an army surgeon in 1537, at the age of 27.

Dominique-Jean Larrey (1766-1842), who was the greatest French military surgeon of the Napoleonic Era, surgeon-in-chief to the Grande Arm  e, and was himself three times wounded, participated in over sixty battles.

Claudius Galen (A.D. 130-200), founder of experimental physiology, treated Emperor Marcus Aurelius Caesar (A.D. 121-180), following his battles, for aggravated attacks of "indigestion," probably due to gastritis or gastroduodenal ulcer made worse by his participation in the wars of that time. Marcus Aurelius later died in Vienna (probably of gastric ulcer or carcinoma—per-

foration?). Galen began to practice in Rome in A.D. 164. ("On Prognostics," Chap. XI). Diocles (fourth century B.C.) of Carystus, son of the physician Archidamus, described accurately the symptomatology of ulcer of the stomach—and its relation to mental disturbances. And, he may have noted aggravated gastric disturbances due to participation in the wars of the time. (Quoted by C. Galen: *De Locis Affectis*, Liber III, Cap VI, "De Melancholia," p. 58 verso-p. 59, Paris, H. Stephanus, 1513.)

F. J. V. Broussais (1772-1838), pupil of Bichat, was surgeon of the Armies of France.

Finally, William Beaumont (1785-1853), author of the famous "Experiments and Observations" (1833), was an army surgeon, as well as a pioneer American physiologist. True military hospitals were founded at the Siege of Alora (1484) and at Baza (1489). It is interesting to note that first-aid treatment in the Roman Army is depicted on Trajan's Column. Fielding H. Garrison wrote "Notes on the History of Military Medicine," Association of Military Surgeons, 1922, Washington.

In about 1320 B.C. Moses led Israel out of Egypt—and there may have been aggravated stomach disturbances during this period among the refugees.

During the time of Homer (800-900 B.C.), and Alexander's (400 B.C.) victory over Persia, and the fall of Jerusalem, military surgeons must have been kept quite busy. This was, perhaps, equally true when Rome conquered Greece (150 B.C.), when Spain was vanquished and conquered by the Arabs (eighth century A.D.), and during Chaucer's time and the time of the One Hundred Years' War (fourteenth century A.D.).

Let us mention here Florence Nightingale (1820-1910), who did so much during the Crimean War (1854-1856), and Edith Cavell, who was cruelly executed (shot) by the Germans on October 12, 1915! Horace (65-68 B.C.), the Roman poet—Quintus Horatius Flaccus—suffered from eye trouble (rheumatic) and gastric disturbances, no doubt made worse by his participation in the Battle of Philippi (42 B.C.). Julius Caesar died in 44 B.C. Horace died suddenly, perhaps from coronary thrombosis or a perforated gastric lesion.—Hyman I. Goldstein, M.D., *J. Med. Soc. of Cape May County, N.J.*

months following the first admission to the hospital.

Discussion

DR. JAMES FLEXNER: This case presents several aspects.

If one considers it from the standpoint of the history alone, it would suggest a low-grade chronic infection. When one notes the physical and laboratory findings, however, a much larger variety of conditions must be considered. The possibilities of chronic infections, leukemias, malignancies, benign and malignant lymphomas must be suspected.

Among the infectious processes the likelihood of a tuberculous involvement is suggested by the history of coughing, low-grade fever, weakness, and night sweats, with marked weight loss. On the other hand, the x-ray of the chest, negative sputa, and the white blood count of 84,500 would make this diagnosis unlikely.

Opposed to the diagnosis of syphilis would be the negative Wassermann and Kahn reactions, the absence of history of all primary or secondary lesions and the absence of vascular and neurologic manifestations.

The patient's residence in California makes consideration of the diagnosis of tularemia imperative. Ulceroglandular and pneumonic types of the disease have been described. The x-ray findings of the chest do not fit the usual reported findings, and the late appearance of the skin lesions would be rather unusual.

Blastomycosis and actinomycosis must be considered. They could give both the skin manifestations and the mediastinal changes which have been described. It is more common for the skin manifestations to precede the visceral involvement, and when the viscera are involved, there is usually a more excessive febrile course.

In spite of the leukemoid picture presented by the very high total white blood count, I believe that the absence of abnormal cells precludes the diagnosis of chronic leukemia. Bone marrow studies, however, might have been helpful.

Under the discussion of neoplasm, one must consider the site of primary involvement. With primary involvement of the esophagus, the lesions, though frequently silent, should have given more marked symptoms with the extensive involvement which has been revealed by x-ray. It is also extremely rare for esophageal neoplasms to metastasize to the skin.

Primary carcinoma of the bronchus is frequently silent until obstruction causes atelectasis and metastases manifest themselves. The patient's persistent cough could be explained in this manner. It would also be possible for the mediastinal glands to become involved with the invasion of the esophageal wall. The marked leukocytosis could be associated with a neoplastic involvement.

Malignant lymphoma or Hodgkin's disease could readily explain all of the findings presented by this case. The white blood count in Hodgkin's disease has been reported to exceed 100,000, with a marked increase of neutrophils. The prolonged febrile course, with profuse sweating, the skin lesions, and infiltration of the esophagus might also be explained by this malady. The very rapid sedimentation rate, large spleen, and hepatomegaly are also frequent findings in Hodgkin's disease.

There have been reports in the literature of gastric invasion in Hodgkin's disease, but I do not recall any records of esophageal involvement. Examination of the aspirated material from the skin lesions should have settled this question.

In benign lymphomas, such as Boeck's sarcoid and Kaposi's sarcoma, the primary lesions usually occur in the skin; and in the case of sarcoid particularly, diffuse pulmonary and bony involvement is common.

Dr. Flexner's Diagnoses

1. Hodgkin's disease.
2. Neoplasm, primary site in the bronchus.
3. Possible tularemia.

Pathology

DR. MAURICE N. RICHTER: The principal lesion is in the esophagus. Here there is a neoplasm measuring 7 by 5 by 3 cm., involving the portion of the esophagus opposite the first and third dorsal vertebrae. The neoplasm caused partial obstruction of the esophagus with ulceration and also extended to the surrounding tissues and infiltrated the trachea. On the inner aspect of the trachea there was ulceration of the mucosa. The entire wall of the trachea at this point is infiltrated with carcinoma cells. At the base of the left lung there was a small abscess a little less than 2 cm. in diameter. No abscess was found on the other side.

The tumor is squamous cell carcinoma arising in the esophagus. The subcutaneous nodule in the right side of the abdomen is a metastasis. This, and the metastases in the regional

months later x-ray treatments were administered to her pelvic region for the purpose of sterilizing her.

A severe skin reaction followed the series of x-ray treatments administered to the breast and shoulder, although as the patient continued to return to the hospital it was apparent that her cancer was controlled as a result of such treatments. She later went to another hospital where a cordotomy was performed for the purpose of relieving a painful condition of the right arm which developed. Following the operation, however, the patient had a complete motor paralysis of the right arm.

The patient instituted a malpractice action against the hospital and eight physicians associated with its staff. Four of these eight physicians were never served with any papers in the case and

the action was never pressed against the hospital. Just before the trial of the case the plaintiff discontinued the action against all of the physicians except the one who had been in charge of the actual rendering of the x-ray treatments. Upon the trial of the case the plaintiff attempted to contend that the reaction which she had sustained following the x-ray treatments was indicative of malpractice on the part of the defendant physician. Actually, the proof showed upon the trial that the reaction which the plaintiff had sustained was inevitable as a result of the proper treatment of a very severe malignant condition and that she was fortunate to be alive at the time of the trial. At the conclusion of all the testimony of the case the Court directed judgment in favor of the defendant, thereby exonerating him from all charges of malpractice.

SCIENTIFIC EXHIBITS

1943

ANNUAL MEETING

Applications for space for the scientific exhibits should be made directly to

Dr. J. G. Fred Hiss,
505 State Tower Building,
Syracuse, New York,

Chairman of Subcommittee on Scientific Exhibits of the Convention Committee.

The Annual Meeting will be held May 3-6, 1943, Hotel Statler, Buffalo, New York.
The list will be closed on February 15, 1943.

PETER IRVING, M.D., *Secretary*

Medicolegal

LORENZ J. BROSNAN, ESQ.

Counsel, Medical Society of the State of New York

Surgeon's Responsibility for Acts of Anesthetist

IN A recently decided case in a nearby state, the Appellate Court passed upon the question of the extent to which a surgeon may be liable for the acts of an anesthetist, and in determining the matter, an interesting decision was handed down.*

The plaintiff engaged a certain Dr. W. to perform upon her a major operation. A spinal anesthesia was agreed upon and the surgeon engaged a Dr. M. to act as anesthetist. Preparatory to the operation, and, in fact, before Dr. W. entered the operating room, Dr. M. introduced a needle between the vertebrae and it broke off. At that point Dr. W. entered the operating room, obtained another needle, administered a spinal anesthesia himself, and proceeded with the abdominal operation. Some days later the patient underwent a second operation by Dr. W., during which, after considerable difficulty, the imbedded needle was removed. There was no doubt that the patient suffered severe physical consequences from the breaking of the needle and the operation for its removal.

The patient instituted a malpractice action against the two doctors, charging both of them with negligence in connection with the breaking of the needle and the treatment which followed. The case was tried before a jury and at the conclusion of plaintiff's evidence the Trial Court directed the jury to return a verdict in favor of both physicians.

An appeal was taken by the plaintiff, and the Court of Appeals, with respect to the case against Dr. M., the anesthetist, found that there had been sufficient evidence introduced to make out a prima facie case of negligence. Consequently, the case was sent back for a new trial as far as he was concerned. The Appellate Court, however, found that the circumstances did not establish a cause of action against the surgeon and directed that the judgment of dismissal in favor of Dr. W. should be affirmed. In so ruling the Court stated in part in the opinion:

* *Wiley vs. Wharton* 41 N.E. (2nd) 255.

"Directing attention now to the claim of liability against Dr. W. and the evidence offered in support of the charge, this Court is of the opinion that the judgment of the Trial Court in determining, as a matter of law, that the evidence did not establish, as to him, a prima facie case of negligence, was correct.

"In reaching this conclusion, we are mindful of authorities which hold that, when one physician, acting in concert with another in the performance of an operation, perpetrates an act of malpractice, the other may be held liable for the acts of the tort-feasor if he observes such tortious conduct and lets it continue without objection, or if he fails to observe and act upon that which, in the exercise of ordinary care and diligence under the circumstances, he should have observed and acted upon.

"We also have considered the doctrine of *respondent superior*, and conclude that a discussion of that doctrine would be entirely obiter under the circumstances of this case.

"Dr. W. and the plaintiff entered originally into a consensual contract. At the time the parties understood that Dr. W. was not to administer the anesthetic but was to perform the abdominal operation. Dr. W. suggested that Dr. M. be engaged. No objection was interposed by the plaintiff. The plaintiff accepted the services of Dr. M., and although Dr. W. actually engaged Dr. M., nevertheless there was created between the plaintiff and Dr. M. a separate contract by implication. Under the circumstances each doctor was engaged to perform his separate and distinct work, independent of the other.

"The record discloses no negligence by Dr. W. in his selection of Dr. M., nor does it reveal that the practice and custom in this or a similar community required the presence or assistance of Dr. W. in the operating room while the patient was being anesthetized; nor does it reveal any acts performed in concert with Dr. M. for which Dr. W. might be held liable for the negligence of Dr. M."

X-ray Treatment of Cancer

A MARRIED woman, 33 years of age, was referred to a hospital clinic by her family physician, who had diagnosed her condition of recurrent carcinoma of the right breast. At the hospital the patient gave a history of having first noticed a lump in the region affected some three years before, and during the intervening time the condition had been twice operated upon. It was learned that she was the mother of two children, 5 and 3 years of age, respectively, and that she had nursed both of these children. She

was examined and the diagnosis was confirmed, and she was referred by the attending physician in charge to the x-ray staff for the purpose of receiving certain x-ray treatments as outlined by the attending physician. Under the supervision of two physicians connected with the x-ray department, the patient received aggressive x-ray treatments over a period of several weeks, which were directed to the region of the right breast and shoulder. These treatments were administered on nineteen separate days, and several

The speaker was the Rev. Earle Anabel, assistant pastor of St. Thomas Aquinas Church, who discussed the "Philosophy of Humor."

Agfa Ansco representatives showed films to demonstrate the latest advancement in colored movies.

Dr. Frank G. Moore, of Endicott, was elected secretary. Other officers are: assistant secretary, Dr. J. C. Zillhardt; treasurer, Dr. Ben L. Matthews; assistant treasurer, Dr. Leonard J. Flanagan; chairman of the economics committee, Dr. Charles J. Marshall; chairman of the legal committee, Dr. Frank M. Dyer; public relations director, Dr. Charles M. Allaben; public health, Dr. Ralph M. Vincent; milk commission, Dr. P. H. Shaw; library chairman, Dr. S. B. Blakely; membership, Dr. Ralph J. McMahon.

Dr. H. I. Johnson and Dr. George C. Vogt were named delegates to the 1943 annual meeting of the State Society.

The board of censors will include: Dr. John J. Cunningham, of Binghamton; Dr. William H. Hobbs, of Binghamton; Dr. Silas D. Molyneaux, of Binghamton; Dr. Frank G. Moore, of Endicott; and Dr. George C. Vogt, of Binghamton; delegates to the State Society will be: Dr. Harry I. Johnston, of Binghamton; and Dr. George C. Vogt, of Binghamton; alternate delegates: Dr. Samuel M. Allerton, of Binghamton; and Dr. Frank M. Dyer, of Binghamton.

Chautauqua County

The annual meeting of the county society was held on December 16, at the White Inn at Fredonia, at which time the following officers were elected: president, Dr. C. Otto Lindbeck, of Jamestown; vice-president, Dr. Oscar T. Barber, of Fredonia; secretary, Dr. Edgar Bieber; and treasurer, Dr. F. J. Pfisterer, both of Dunkirk.

Delegates to the State Society are Dr. Edgar Bieber and Dr. W. G. Hayward, of Jamestown.

At the scientific session following the election of officers a paper was given by Dr. Wendell R. Ames, Health Commissioner of Cattaraugus County, on "Factors in the Development of Typhoid Carrier Stage." As an added attraction a sound film on otitis media was presented.

Chemung County

Dr. Florence S. Hassett was elected president of the Chemung County Medical Society at a meeting on December 9 at the Arnot-Ogden Hospital.

Others named were vice-president, Dr. R. Scott Howland; secretary, Dr. John H. Burke, Jr.; treasurer, Dr. M. Frederick Butler.

Dr. Howland was substituted in the nomination for Dr. S. L. Larson, who was called into Army service.*

Chenango County

The 138th annual meeting of the Chenango County Medical Society was held at the Scintilla restaurant in Sidney on December 9. A steak dinner was served to about forty members and guests.

At the business session the following officers were chosen:

President, Dr. William P. Elliott, of New Berlin; vice-president, Dr. E. F. Gibson, of Norwich;

secretary and treasurer, Dr. John H. Stewart, of Norwich; member of board of censors, Dr. John A. Hollis, of Norwich.

Dr. A. K. Benedict of Sherburne was named as a delegate to the State Society, with Dr. J. M. Crumb, of South Otselic, as alternate.

Committee chairmen for the Society appointed for the coming year are: legislation, Dr. J. M. Crumb; economics, Dr. Edward Danforth, of Sidney; public health and education, Dr. E. F. Gibson; maternal welfare, Dr. C. D. Meacham; and committee on tuberculosis, Dr. A. K. Benedict, of Sherburne.

Dr. Elliott presided at the meeting in the absence of Dr. Ben Dodge, of Bainbridge, who is now in military service.

A resolution offered by Henry M. Champion, president of the Chenango County Taxpayers Association, advocating the closing of Brookside Crest at Sherburne was read at the meeting. The communication was placed on the table with no action being taken.

Following the meeting the physicians were taken on a trip of inspection of the Scintilla plant.*

Clinton County

Officers of the Medical Society of the County of Clinton for 1943 are: president, Dr. Sidney Mitchell; vice-president, Dr. Phillip B. Barton; secretary-treasurer, Dr. T. A. Rogers; and censors: Drs. L. H. Caswell, C. D. Silver, and Aaron Davis.

. . .

The committee minora of the county society held a business meeting on December 16, following a dinner which was served at the American Legion Home.

Physicians named to attend the dispensary at the Clinton County Home during the coming year were: Dr. E. W. Sartwell, of Peru; Dr. Aaron Davis, of Mooers; Dr. A. Z. Speare, of Altona; and Dr. Phillip Barton, of Amsterdam.*

Erie County

The Buffalo War Council has ratified the appointment of the following doctors, by Dr. G. Nelson Russell, chairman, to the Health Preparedness Committee: Dr. Harold F. R. Brown, chairman of Emergency Medical Division, War Council; Dr. Harvey Hoffman, Erie County Medical Society; Dr. George Slotkin, Buffalo Academy of Medicine; Dr. Leslie Murray, Eighth District Dental Society; Dr. William T. Clark, Edward J. Meyer Memorial Hospital superintendent; Dr. Archibald S. Dean, state district health officer; Dr. Stockton Kimball, Council of Social Agencies, Health Division; Dr. Roy L. Scott, Buffalo Chapter, American Red Cross; Dr. Albert H. Garvin, Buffalo Tuberculosis Association.*

. . .

A plea that doctors "strive to maintain the decent independence of our profession" during the period of social readjustment following the war was sounded on December 23 by Dr. Harvey P. Hoffman in his final address as president of the Medical Society of the County of Erie.

Dr. Hoffman addressed the society in Hotel Statler at the annual meeting, which unani-

*Asterisk indicates item is from local newspaper.

Medical News

Medals of the Army Medical Department

IN A monograph recently published by the American Numismatic Society, Hume describes a series of twenty-four medals, struck in gold, silver, and bronze, that have been awarded in recognition of scientific or academic attainment by members of the United States Army Medical Department. Some of these medals were awarded for work of great importance to our country; they serve also to reflect the quality of the army medical educational system. The Army Medical School, the oldest army service school, possesses the oldest medal in the Army awarded for academic standing. At the time of the War Between the States, Surg. Gen. William A. Hammond proposed the establishment of such an institution, but it did not then materialize. Surg. Gen. George M. Sternberg, with the support of a later secretary of war, Daniel S. Lamont, established the Army Medical School in 1893. The Army School of Nursing was established in 1918, the Medical Field Service School in 1920, the Army Dental School in 1921, and the Army Veterinary School in 1922. All these schools have medals created as awards for academic attainment. The medals were established by private gift, although accepted by the Army Medical Department and given official recognition. The school of Aviation Medicine also was established in 1922. Hume has reproduced the design of these medals and given brief biographies of some of the recipients.

A second group of medals reviewed are those that have been awarded to certain distinguished members of the Army Medical Department. The Gorgas Medal was presented by the American Medical Association at its annual meeting in 1914 to Surg. Gen. William C. Gorgas, "whose genius made possible the construction of the Isthmian Canal." The Congressional Walter Reed Medal honoring the chairman of the Army Commission whose experiments proved that mos-

quitoes transmit yellow fever was struck some thirty years after the commission did its work and long after Major Walter Reed had died. Hume reviews again those famous experiments. Another Walter Reed Medal was created by the American Society of Tropical Medicine in 1934, to be awarded to individuals or institutions in recognition of meritorious achievement in tropical medicine. The Bailey K. Ashford Medal was established by Eli Lilly & Co. in 1940 and accepted by the American Society of Tropical Medicine, which was given the right to select the winners. The Wellcome Medal, established by the late Sir Henry Wellcome of London, an American by birth, has been awarded by the Association of Military Surgeons of the United States annually since 1916 for the best research, discovery, invention, essay, or other acts or deeds which the association considers helpful in the attainment of its objects and relating to any phase of medical military affairs and disease control associated with the Army, Navy, Militia, and Public Health Service.

There have been numerous other awards. The Sedgwick Medal was awarded to Brig. Gen. Frederick F. Russell, who was largely responsible for the introduction and use of typhoid vaccine in the Army. Surgeon General Sternberg was awarded several medals, including one by the American Medical Association; John Shaw Billings, Deputy Surgeon General of the Army and the father of the Army Medical Library, received several awards. This monograph is limited, however, to medals honoring medical officers rather than to medals won by individual medical officers.

The award of medals is a time-honored method of recognizing merit. Hume's monograph will aid collectors and bring home to many others the scientific accomplishments of United States Army medical officers.—*J.A.M.A.*, December 26, 1942.

County News

Albany County

Officers elected on December 9 for 1943 are: president, Dr. Morgan O. Barrett; vice-president, Dr. John B. Horner; secretary, Dr. Homer L. Nelms; treasurer, Dr. Frances E. Vosburgh; historian, Dr. Emerson C. Kelly; censors: Dr. John J. Phelan, chairman, Dr. James A. Hogan, Dr. Donald D. Prentice, Dr. Benno J. Troidle, Dr. Arthur J. Wallingford; delegates: Dr. Otto A. Faust, Dr. James S. Lyons, Dr. Homer L. Nelms; alternate delegates: Dr. Jacob L. Lochner, Jr., Dr. I. J. Murnane, and Dr. Clarence A. Traver. All the officers are residents of Albany.

Bronx County

At a meeting of the North Bronx Medical Society on January 7, at Elmsere Hall, the following program was given: "Heart Disease Complicating Pregnancy," by Dr. Harry B. Biscow; discussion by Dr. Hyman J. Epstein; "Throm-

boangitis Obliterans in a Man Past Seventy," by Dr. Gamliel Saland; discussion by Dr. Isidor Mufson; "Persistent Ventricular Tachycardia During Coronary Thrombosis with Recovery," by Dr. Benjamin Archer; discussion by Dr. Solomon Krell; "Gall-bladder Disease Simulating Psychoneurosis," by Dr. Samuel Weiskopf; discussion by Dr. Benjamin Sherwin; "Orchiectomy for Carcinoma of Prostate," by Dr. Isidor Palais; discussion by Dr. Paul W. Aschner.

General discussion was held at the close of the program.

Broome County

Dr. Elton R. Dickson was re-elected president of the Broome County Medical Society at their annual dinner meeting.

Wives of members of the society now serving in the armed services were guests. Other members of the society's auxiliary also participated.

ports and discussion of current war conditions in medical practice.*

New York County

At the last 1942 meeting of the county society, on December 28, Major General Basilio J. Valdes, Chief of Staff of the Philippine Army, described "War in the Philippines from a Surgeon's Viewpoint."

An award of Citation of Merit was made to Dr. William B. Rawls by Col. Samuel Kopetzky, Medical Director of Selective Service, New York Area.

The following New Yorkers received awards for scientific exhibits at the American Congress of Physical Therapy: the silver medal to Drs. Karl Harpuder and Irwin D. Stein, of Montefiore Hospital, for photographs of minute blood vessels; the bronze medal to Dr. Kristian G. Hansson and Miss Florence Liljander, of the Hospital for Special Surgery, for exercises for low-back strain; honorable mention to Dr. Joseph Kovacs, of the New York Post-Graduate Medical School and Hospital, for diagnosis and treatment of leg ulcers.—*J. Med. Soc. Co.*

We should like to quote this editorial entitled "The Ramirez Administration," from the *Journal of the Medical Society of the County of New York*, December 26:

Probably no one ever assumed the presidency of the Medical Society of the County of New York under more trying circumstances than Dr. Maximilian A. Ramirez. Our entry into the war deposited many new duties and problems on the doorstep of organized medicine. Its multifarious peacetime activities had also to be continued. At the same time there was a continuous loss of experienced committee heads and members to the armed forces.

Despite these difficulties, Dr. Ramirez and his co-workers achieved greatly. The Committee on Medical Preparedness helped to mobilize the profession both for military service and for civilian Emergency Medical Care. Problems arising out of the rationing of tires and gasoline were ironed out with the proper authorities as they arose.

In spite of the pressure of wartime tasks, the Ramirez administration not only continued but expanded the county society's normal activities. One of its outstanding achievements was the organization of the Blood and Plasma Exchange Bank. Conceived during Dr. Alfred M. Hellman's presidency, the plan was completed and put into operation this year, with already manifest improvement in the supply of blood and plasma to the needy sick. Its ultimate benefits promise to extend far beyond the boundaries of New York County.

In the course of the year, a number of medical service plans were studied and action taken on them. Community Medical Care, Inc., was not approved; the "B" plan of the Group Health Cooperative, Inc., was. Active support was given to the Medical Expense Fund of New York.

In recognition of the need for more effective public contacts, the Radio Committee was reorganized and its activities broadened. Every effort was made to further the just aspirations of our women physicians. The *Journal* was launched in its present form.

The society's relations to municipal activities in the health and Hospitals Departments. A satisfactory understanding was reached with the Police Department regarding the parking of doctors' cars and the Commissioner of Licenses was persuaded to rescind the specification of a one-dollar fee for the physical examination of applicants for barbers' licenses.

No review of Dr. Ramirez' administration would be complete without reference to the exceptional quality of the programs for the stated meetings throughout his tenure of office. Unprecedented attendance records bear witness to the unflinching timeliness and interest of the programs he arranged.

Niagara County

Friends have received word that Dr. James S. Dawson, former Perry physician, is now practicing medicine in Wilson, N. Y. Dr. Dawson has been in Toronto and Little Current, Canada, for the past few years. In Wilson he has taken over the practice of a physician now in the service.

Onondaga County

Dr. James H. Bennett has been appointed substitute health officer for the Village of Baldwinsville.

Dr. Bennett was appointed to take over the duties of Dr. Justin W. Mignault, who was recently granted a leave of absence by the village when he joined the nation's service with the rank of assistant surgeon under the U. S. Maritime Commission.*

Orange County

Dr. Earl R. Van Amburg, of Pine Bush, was elected president, Dr. Walter I. Neller, of Middletown, vice-president, and Dr. Earl Waterbury, of Newburgh, was re-elected secretary and treasurer at the annual meeting of the Orange County Medical Society.

Forty-nine of the society's 170 members now are in the Armed Forces, it was disclosed.*

Rockland County

The Medical Society of the County of Rockland has elected the following officers for 1943: president, Dr. Marjorie R. Hopper, of Nyack; vice-president, Dr. Harold S. Heller, of Spring Valley; treasurer, Dr. Dean Miltimore, of Nyack; secretary, Dr. A. N. Selman, of Spring Valley.

Dr. Hopper is the first woman to be elected president of the Rockland County Medical Society. She is the health officer of the town of Clarkstown, physician for the Nyack public schools and the Upper Nyack public schools, and is a staff member of the Nyack Hospital, where she is an associate in obstetrics.

She was graduated from Smith College and Cornell Medical School and served her internship at the New York Infirmary for Women and Children. Besides taking care of her private practice she keeps house and has two children. She is the wife of Ivin Sickles, an artist.*

Schenectady County

The first mercy emblem of the Medical and Surgical Relief committee in Schenectady County has been presented to Dr. William F. Nealon, president of the county society, by Mrs. William M. Mallia, chairman of public relations and acting chairman of the Medical and Surgical Relief drive; Mrs. Charles F. Rourke, president of the woman's auxiliary of the county medical society; and Dr. Joseph Peter Houget, of New York, national medical director of the Medical and Surgical Relief Committee.

An emergency medical field service set was presented to Dr. James M. Blake, chief of the Schenectady emergency medical service, by Mrs. Burke and Mrs. Mallia, at Glenridge Sanitarium. Dr. Houget also attended the ceremony.*

Schuyler County

County society officers elected for 1943 at the annual meeting are: president, Dr. John W.

mously elected Dr. Harold F. R. Brown, first vice-president, to succeed Dr. Hoffman in 1943.

In reviewing the contributions of the society and individual members to the war effort, Dr. Hoffman reported that 302 Erie County physicians, of whom 198 are society members, already have gone into armed service.

Other officers chosen besides Dr. Brown are: first vice-president, Dr. John D. Naples; second vice-president, Dr. Patrick H. J. Buckley; secretary, Dr. Louise W. Beamis-Hood; treasurer, Dr. Ralph M. DeGraff; board of censors: Dr. Elmer T. McGroder, Dr. Francis E. Fronczak, Dr. Charles W. Bethune, Dr. Eugene M. Sullivan, and Dr. John C. Brady; delegates to the State Society: Dr. Alfred H. Noehren, Dr. Joseph C. O'Gorman, Dr. Brady, and Dr. Thurber LeWin; alternates: Dr. John T. Donovan, Dr. Norman C. Bender, Dr. Harold B. Johnson, and Dr. Mary T. Kazmierczak; chairmen of standing committees: Dr. Edmund A. Mackey, legislation; Dr. John W. Kohl, public health; Dr. Porter A. Steele, economics; and Dr. Arthur F. Glaeser, membership.*

Franklin County

Officers elected recently to head the medical society of Franklin County for 1943 include:

President, Dr. Francis B. Trudeau, of Saranac Lake; vice-president, Dr. Bruce T. Smith, of Fort Covington; secretary-vice-president, Dr. Philip Gorman, of Fort Covington; second treasurer, Dr. Daisy Van Dyke, of Malone; censor (three-year term), Dr. Philip Gorman; state delegate, Dr. C. C. Trembley, of Saranac Lake; alternate delegate, Dr. J. E. White, of Malone; and legislative committee, Dr. C. C. Trembley, chairman, Dr. J. W. Kissane, of Malone, and Dr. E. M. Austin, of Tupper Lake.

Genesee County

Dr. Ward B. Manchester, of Batavia, was elected president of the Genesee County Medical Society, succeeding Dr. Raymond L. Warn of Oakfield, at a meeting of the society held at the Batavia Club. Dr. Irwin A. Cole, of Batavia, was named vice-president, and Dr. Peter J. Di Natale was renamed secretary and treasurer.

Herkimer County

Dr. Byron G. Shults was re-elected president of the county society at the 136th annual meeting on December 8. Dr. Shults named the following executive committee: Dr. F. C. Sabin, of Little Falls; Dr. F. H. Moore and Dr. A. L. Fagan, of Herkimer; Dr. F. B. Conterman, of Ilion; and Dr. A. B. Santry, of Little Falls.

Other officers elected were: vice-president, Dr. N. D. Lill, of Dolgeville; second vice-president, Dr. D. F. Aloisio, of Herkimer; third vice-president, Dr. F. M. Neuendorfer, of Mohawk; secretary, Dr. Sabin; treasurer, Dr. Fagan; librarian, Dr. G. S. Eveleth, of Little Falls; censors: Dr. Moore, Dr. Sabin, Dr. Harold F. Buckbee, of Dolgeville, Dr. Harry J. Sheffield, of Frankfort, and Dr. C. C. Whittemore, of Ilion.

Dr. T. Wood Clarke, of Utica, historian, spoke on "Fairfield Medical School," recalling many incidents which occurred on the campus of a once prosperous educational institution, abandoned since the turn of the century.

Kings County

The Associated Physicians of Long Island will hold their annual meeting on January 30.

The scientific and business session will be held at the Methodist Hospital, where it is planned to have clinics in the morning. After luncheon there will be an inspection of the New Buckley Pavilion. The scientific session will take place at 3:00 p.m. Several short papers on various topics will be presented, followed by discussion.

At the business meeting, after the afternoon program, the annual election of officers will take place.

The annual dinner will be held at 6:30 p.m. at the Montauk Club. Members are reminded to reserve the date.—*Bull. Med. Soc. Kings Co.*

The Stated Meeting of the county society was held on Tuesday evening, December 15, at 8:45 p.m. in the McNaughton Auditorium.

The scientific program and speakers included: "Management of the Gynecological Cancer Patient," by William P. Healy, M.D., F.A.C.S., F.A.C.R., of New York City; and "Chronicity—A Mortality Factor in Gall Bladder Surgery" (illustrated by lantern slides), by Chas. Gordon Heyd, M.D., F.A.C.S., of New York City.

The acquisition by the society of a long needed public address system was made possible by members of the staff of the Jewish Hospital at the instigation of Dr. Abraham D. Segal.—*Bull. Med. Soc. Kings Co.*

Madison County

The following members were elected to office in the Madison County Medical Society for 1943:

President, J. W. Thro, M.D., of Hamilton; vice-president, A. E. Broga, M.D., of Oneida; secretary, Felix Ottaviano, M.D., of Oneida; treasurer, J. D. Boyd, M.D., of Chittenango.

The Society has had four Post-graduate Lectures. They have been well presented and very well received. Attendance has been fair, considering the number of physicians left in the county and the work that they have to do at this time.

We are happy to hear that Lee S. Preston, secretary of the society for many years, has been appointed to the office of Field Director, Division of Health Preparedness Committees, in Albany.—*Felix Ottaviano, M.D., Secretary.*

Montgomery County

Dr. Nicholas T. Lombardi, of Amsterdam, was elected president of the county society at the annual meeting held on December 15 at the Elks Club. Other officers named were: vice-president, Dr. Alton J. Spencer, of Canajoharie; secretary, Dr. Peter J. Lucas, of Amsterdam; treasurer, Dr. Melvin T. Woodhead, of Amsterdam.

Dr. Lombardi succeeds the late Dr. James M. Bernhard, and the new secretary is successor to Dr. Roger Conant, now with the Army Medical Corps.

There were no speakers, the session following a dinner being devoted to the reading of annual re-

bald, of Bedford Hills, retains the chairmanship of the medical economics committee; Dr. Gilbert Daldorf, of Grasslands Hospital, will again serve as chairman of the scientific committee.

Dr. Morton Ryder, of Rye, has accepted the chairmanship of the hospital committee; Dr. Harris W. Campbell of White Plains, of the membership committee; Dr. Isadore Zadek, of Mount Vernon, of the workmen's compensation committee, and Dr. Erich H. Restin, of Mount Vernon, will again act as chairman of the medical preparedness committee, a post which he has held since the beginning of the emergency.

In addition, Dr. Adie has announced the appointment of chairmen of special committees, as follows: Dr. James Denton, of New Rochelle, will continue as chairman of the special committee on cancer; Dr. William G. Childress, of Grasslands Hospital, will again serve as chairman of the special tuberculosis committee; and Dr. Alfred C. Emmel, of Mount Vernon, continues as chairman of the special maternal welfare commission.

Dr. Elton G. Littell, of Yonkers, has been appointed chairman of the special committee on the school health program; Dr. H. H. Stevens, of Yonkers, has been appointed chairman of the special committee on medical-pharmaceutical relations; and Dr. Clarence O. Cheney, of the New

York Hospital, Westchester Division in White Plains, will resume the chairmanship of the special committee on mental health.*

* * *

Delegates to the State Society also elected recently are: Dr. Arthur F. Heyl, of New Rochelle; Dr. Erich H. Restin, of Mount Vernon; Dr. Ralph T. B. Todd, of Tarrytown; Dr. Laurence D. Redway, of Ossining; and Dr. Andrew A. Eggston, of Mount Vernon; and alternate delegates: Dr. C. J. F. Parsons, of Dobbs Ferry; Dr. Ashley B. Morrill, of Bronxville; Dr. Henry J. Vier, of White Plains; Dr. Robert W. Helm, of Ossining; and Dr. Robert B. Archibald, of Bedford Hills.

Wyoming County

Newly elected officers of the Medical Society of the County of Wyoming are: president, Dr. G. A. McQuilkin, Varysburg; vice-president, Dr. G. S. Baker, of Castile; secretary-treasurer, Dr. G. W. Nairn, of Warsaw; delegate, Dr. H. S. Martin, of Warsaw; alternate, Dr. G. S. Baker, of Castile; censors, Dr. Mary T. Greene, of Castile; Dr. L. H. Humphrey, of Silver Springs; Dr. G. A. McQuilkin, of Varysburg; and tuberculosis committee, Dr. L. H. Humphrey, chairman.

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
William E. Barron	76	P.&S., Balt.	December 21	Addison
Solomon Beck	76	P.&S., N.Y.	December 26	Manhattan
Ella Mary Bergtold	58	Buffalo	November 17	Bowmansville
Raymond L. Cooley	50	Buffalo	December 22	Buffalo
Arland L. Darling	72	Buffalo	December 13	Corning
Helen Gyori	71	Budapest	November 6	Bronx
Charles E. Hirsh	82	Pennsylvania	November 4	Brooklyn
Henry H. Mayne	78	Buffalo	December 17	Lockport
John F. Myers	79	P.&S., N.Y.	December 26	Sodus
Arthur M. Phillips	64	Buffalo	December 16	Manhattan
John Plunkett	82	N.Y. Univ.	December 21	Freeport
Harry K. Reynolds	57	Univ. & Bell.	December 29	Brooklyn
Arthur S. Ruland	74	Syracuse	December 23	Syracuse
Gustav Sass	38	Vienna	December 27	Bronx
A. Noah Schiller	58	P.&S., N.Y.	December 17	Manhattan
Charles A. Van der Beek	79	N.Y. Univ.	December 15	Rochester
Stella C. Venable	84	Buffalo	November 5	Geneseo

SCIENTISTS TO ADVISE NBC

Formation of a committee of three scientists to study network broadcasting from the standpoint of morale and public health was announced recently by Niles Trammell, president of the National Broadcasting Company. The committee's members will act as permanent consultants to NBC and make recommendations on how the network may better its efforts to promote national welfare and aid the war.

Members of the committee, whose work will be supervised by Dr. James Rowland Angell, public service counselor to NBC, are Dr. Morris Fishbein, who will serve as chairman; Dr. Henry R. Viets, Boston neurologist and lecturer at the Harvard Medical School; and Dr. Winfred Overholser, professor of psychiatry at the School of Medicine of George Washington University.

Burton, of Mecklenburg; vice-president, Dr. W. Merscher, of Watkins Glen; secretary-treasurer, Dr. Oakley A. Allen, of Watkins Glen; delegate to the State Society, Dr. C. W. Schmidt, of Burdett; alternate, Dr. William C. Stewart, of Watkins Glen; censors, all members.

Appointed to committees are the following: medical preparedness and defense, Drs. J. W. Burton, W. C. Stewart, and O. A. Allen; compensation secretary, Dr. Allen; arbitration of bills, Dr. A. H. Jackson, of Watkins Glen; hospital committee, Drs. Schmidt and Allen; maternal welfare, Dr. P. F. Willwerth, of Montour Falls; deaf and hard of hearing, Dr. Jackson; public health, medical education, tuberculosis, and schools, Dr. Allen; public relations, Dr. Willwerth; and legislative, Dr. Burton.

Seneca County

Seneca County Medical Society officers elected for 1943 at the annual meeting on October 8 are: president, Dr. Roy E. Wallace, of Seneca Falls; vice-president, Dr. W. M. Pamphilon, of Willard; censors: Drs. R. F. Gibbs, of Seneca Falls; E. P. McWayne, of Fayette; and F. W. Lester, of Seneca Falls; and secretary-treasurer, Dr. Lester.

Committees appointed for the year include: comitia minora: Drs. Wallace, Pamphilon, Lester, Gibbs, and McWayne; procurement and assignment committee: Dr. Pamphilon, Dr. J. G. Gordon, of Ovid, and Dr. Wallace; legislative committee: Dr. Lester and Dr. A. F. Baldwin, of Waterloo; public relations: Dr. E. M. Wellbery, of Waterloo, and Dr. Gibbs; compensation committee: Dr. Baldwin, and Dr. A. Letellier, of Seneca Falls; economics committee: Drs. Gibbs and Wallace; public health committee: Dr. G. M. Brandt, of Seneca Falls, Dr. S. B. Folts, of Lodi, and Dr. Lester.

Tioga County

The entire slate of officers of the county society was re-elected at the annual dinner meeting held on December 9 at the Green Lantern Inn, when Dr. Hugh S. Gregory, superintendent of the Binghamton State Hospital, was the principal speaker.

Dr. J. B. Schamel, of Waverly, will serve as president for another year. His associate officers are as follows: vice-president, Dr. Hiram L. Knapp, Jr., of Newark Valley; secretary-treasurer, Dr. Ivan N. Peterson, of Owego; delegate to the State Society, Dr. Corbett S. Johnson, of Spencer; alternate, Dr. Fred K. Shaw, of Waverly; censors: Dr. F. A. Carpenter and Dr. F. H. Spencer, of Waverly, and Dr. John Jakes, of Candor.

Introduced by Dr. A. J. Capron, of this village, Dr. Gregory delivered a most interesting and informative address, dealing principally with the activities at the State Hospital.

The annual meeting was preceded by a dinner served at 6:30 o'clock, and after the business session an hour of relaxation and general sociability was enjoyed.*

Tompkins County

The following officers were elected at the annual meeting of the Tompkins County Medical Society, held in the Ithaca Hotel on December 16: president, Dr. J. N. Frost; vice-president,

Dr. R. H. Broad; secretary-treasurer, Dr. W. Wilson; censors: Dr. R. Douglass, Dr. L. P. Larkin, Dr. D. Robb, Dr. L. H. Speno, and Dr. H. J. Wilson, all of Ithaca; delegate to the State Society will be Dr. L. P. Larkin, who holds the office for the second year.

Dr. Ernest J. Simmons, associate professor of Slavic languages and literatures at Cornell University, addressed the society on Russia's international relations.*

Ulster County

The following item was clipped from the *Saugerties Post*:

"Dr. Alfred Berger has opened an office in Tannersville. A graduate of the University of Vienna in 1919, Dr. Berger spent two years in England before arriving in the United States with his wife in 1940. He holds a New York State medical license. While vacationing in a nearby Catskill resort he learned of the vacancy in Tannersville and decided to open an office for practice there."

Warren County

Officers elected at a meeting of the county society include: president, Dr. Burke Diefendorf, of Glens Falls; vice-president, Dr. James A. Glenn, of North Creek; secretary-treasurer, Dr. Morris Maslon, of Glens Falls; censors: Drs. W. W. Bowen, Dwight Sawyer, and Floyd Palmer, all of Glens Falls.

Washington County

Committee members appointed at the annual meeting of the county society whose names were not included in the list of officers published in the December 15 issue are: committee on workmen's compensation, Dr. W. S. Bennett, of Granville; committee on preparedness: Drs. E. V. Farrell, of Whitehall; V. K. Irvine, of Granville; R. E. Borrowman, of Ft. Edward; and D. M. Vickers of Cambridge.

Wayne County

Dr. Ralph Sheldon, of Lyons, was elected president of the Wayne County Medical Society for 1943 at its annual meeting held on December 9 in Lyons. He succeeds Dr. James L. Davis, of Newark, who was president the past two years and secretary-treasurer the previous seven years.

Other officials elected are: first vice-president, Dr. D. F. Johnson, of Newark; second vice-president, Dr. George W. Pasco, of Wolcott; secretary-treasurer, Dr. Thomas Hobbie, of Sodus (re-elected).

Annual reports were read and the doctors enjoyed a color movie showing the latest wartime plastic surgery work in England.*

Westchester County

Dr. George C. Adie, of New Rochelle, recently re-elected president of the Westchester County Medical Society, has announced the selection of committee chairmen for the coming year.

The public health committee will serve under the chairmanship of Dr. John B. Abouse, of Yonkers; Dr. Waring Willis, of Bronxville, will be chairman of the legislative committee; Dr. E. Leslie Burwell, of New Rochelle, chairman of the public relations committee; Dr. Robert B. Archi-

Virtually all the buildings will be one-story farm structures and must be completed by April 15.

The total cost of the project will be approximately \$4,167,341, which includes \$1,700,000 for materials to be furnished by the government. Already several carloads of lumber have been delivered to the site.

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The usual Kings County children's Christmas party was held December 19, with playlets and presents and ice cream and cake—and Santa Claus. The latter was played by one of the members of the staff.

Excerpts from "Doodle Dandy of the U. S. A.," a musical play, were presented by Junior Programs, Inc., for the entertainment of nearly 150 young patients in the Psychiatric Auditorium at Bellevue Hospital.

The dancing and antics of Harold Steen, who played Doodle Dandy, had the children in high glee.

A Christmas festival with Chinese overtones eradicated the hospital atmosphere from the first floor of Beekman Hospital. Behind a huge Christmas fireplace, constructed in the main lobby, were toys and dolls for 300 children—or was it "thousands and thousands," as it seemed to Miss Dorothy Stickney, of "Life With Father," in the role of Mrs. Santa Claus, who helped dispense the toys?

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"The guard is composed of the following Kings County personnel: 105 nurses, 17 surgeons, 14 men from the medical group, such as

Hospital News

Lessons Learned from the Boston Fire

IN their article entitled "The Cocoanut Grove Disaster in Boston," which appeared in the December 26 issue of the *J.A.M.A.*, Drs. N. W. Faxon and E. D. Churchill, Director and Chief, respectively, of the West Surgical Service of the Massachusetts General Hospital, have set forth several suggestions for the establishment of a catastrophe organization for all hospitals. Among other things, they advise:

1. "A well-planned and organized telephone service to notify hospital administration, staff, maintenance, and department heads"

2. "The immediate examination and separation of the living and dead at the very entrance of the hospital. . . . Two medical house officers were stationed at the door for this purpose."

3. "The organization and division of staff and nurses into teams for the undressing of patients, the care of clothes and valuables, the administration of morphine, the treatment of shock, dressing of burns and wounds, oxygen therapy, and surgical procedures."

4. The assignment of experts to the scene

of a disaster in order to determine the nature of the trauma, the presence of noxious fumes, etc., as an aid to the treatment of casualties. Immediate examination of the dead should also be started as a further means of assisting in the treatment of the living

5. The establishment of an emergency morgue. Consecutively numbered tags, bearing the date and hour of arrival, should be attached to the wrist of each body. In making identifications, only one group should be admitted at a time

Because they had been prepared for emergency work through the operation of Civilian Defense organizations, the directors of the Massachusetts General Hospital were ready to handle the catastrophe, but in ordinary times such organization might not have been so well established. As the authors point out, plans for the handling of emergency disasters must be made in every hospital, for "an emergency anticipated and prepared for ceases to become an emergency."

New York Nurses in Africa

AMONG the United States Army nurses who have arrived in North Africa are 52 women from New York, all members of the Roosevelt Hospital unit. The nurses are under the command of Second Lieutenant Edith Frew, who recently reported by letter to the Roosevelt Hospital on activities of the unit.

The unit includes representatives of nine New York hospitals—27 from Roosevelt Hospital; 6 from Doctors' Hospital; 5 from Lee's Sanitarium; 3 from City Hospital, Welfare Island; 1 each from Flower-Fifth Avenue Hos-

pital, Bellevue, St. Ann's Maternity Hospital, and Manhattan Ear, Nose, and Throat Hospital, and 2 from Queens General Hospital, Jamaica

The unit, also including 32 doctors, was organized in February by Lt. Col. Frank B. Berry, surgeon on the Roosevelt Hospital staff, and left for overseas duty in September, after participation in maneuvers in North Carolina. In October the unit arrived in England, where Lt. Col. William E. Stone, of the Missouri National Guard, assumed command

Improvements

According to the *Watertown Times* of December 26:

"Nothing stands in the way of early inauguration of construction operations for Massena's government-contributed barracks type hospital, hospital board officials felt today, with receipt of word from Congressman Clarence E. Kilburn that a War Production Board approval of needed priorities will be forthcoming by the first of next week.

"A government release of materials will clear the last obstacle holding up actual construction, it was pointed out, as the necessary agencies have given their approval, an architect's design has been accepted, the contract has been let, and the local board has secured the tentative services of personnel to staff the institution

"The barracks-type hospital, considered an emergency measure because of the lack of critical metals required for the postponed \$300,000 structure originally decided upon, will be constructed on the rear of the Maple Street plot donated to

the town last spring by Mayor and Mrs. R. A. Newton.

"As demands of the war procurement agencies cornered more and more of metal building materials, however, and the structure entered the "off-for-the-duration" class, the hospital board, headed by Assemblyman Allan P. Sill, accepted the government alternative of a temporary construction, which would ease the local burden until normalcy returned.

"Since the plan was accepted, lumber, too, has become a critical material, and the lack of needed priorities remained the last stumbling block to the inception of actual construction"

Construction of the 120 buildings of the 1,500-bed U.S. Army General Hospital on a 165-acre tract in Burrstone Road, Town of New Hartford, will be started at once, it has been announced by Maj. F. R. Deland, engineer in charge of the project for the government

* Asterisk indicates that item is from local newspaper

Virtually all the buildings will be one-story farm structures and must be completed by April 15.

The total cost of the project will be approximately \$4,167,341, which includes \$1,700,000 for materials to be furnished by the government. Already several carloads of lumber have been delivered to the site.

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"The guard is composed of the following Kings County personnel: 105 nurses, 17 surgeons, 14 men from the medical group, such as

x-ray technicians, clerks, laboratory assistants and pharmacists, five dentists, three pathologists, and two roentgenologists.

"They'll form Base Hospital 37 and act in unison wherever sent. They are volunteers.

"The Army is appointing 12 men to form the administrative staff that travels with the unit.

"Heading the groups is Lieut. Col. Dr. George Dixon, of surgery. Topping the medical men is Lieut. Col. Arthur Frankhauser; heading the nurses' contingent is Miss Alice Gritsavage, former operating-room supervisor.

"They'll have their own ambulance, too."*

. . .

The Junior American Nurses have opened their new national headquarters at the Hotel Biltmore, in New York City.

According to Mrs. Dixie L. Dean, national director, the purpose of the organization is to prepare the girl of high school age for an im-

portant part in war work. She announced that plans soon will be initiated for opening nurseries throughout the country to care for the children of factory workers.

"We will train the young to care for the young," she said. "Young girls will take the children of workers to and from the nurseries and may care for them at night."

The first nursery will be opened in Jamaica, Long Island, in January.*

. . .

Dr. George S. Reiss has been chosen president of the Long Beach Hospital, the first physician ever to be elected to the post. Chief of the hospital's medical staff, Dr. Reiss was elected at the annual meeting in the hospital auditorium on December 7. He succeeds Leo Gerstenzang, who was named honorary president of the institution.*

USEFULNESS OF LAUGHTER

Laughter is dependent upon a reasoning power and sense of deduction. It is physiologic, and it is natural.

Laughter may thus be said to be an integral part of the physiologic processes of the body and mind, and, as such, should be practiced more and more. Laughter and pleasant thinking should then be considered a valuable adjunct to all-round healthy living as well as a natural, easy means of total physiologic exercise easily within the reach of all.

Finally, laughter begets optimism and self-confidence, and relegates fear and pessimism to the background. It is a well-known fact that the self-confident, happy, optimistic contestant, whether it is in athletics, mental con-

flict, or any other phase of life, has a distinct advantage both physical and mental over an opponent who is not so fortunate as to possess these qualities.

It may be that in the future we will realize more and more the importance of a hearty laugh and its attendant chain of supporting by-products. We may eventually evaluate the true balance of spare time, call it what you will—vacation, deviation from the humdrum path of daily work, or just plain loafing—and then recognize the fact that accomplishment will be measured by such standards rather than by long hours of drudgery amid tobacco ashes, empty coffee pots, and, in some cases, empty flasks.—E. Forrest Boyd, M.D., in *Southwestern Med.*

Steps to Check Emotional Ills Being Planned*

A vastly increased application of the comparatively new science of industrial psychiatry, bringing major social and economic benefits, will be another development of the new industrial pattern emerging from the war effort, in the view of Dr. Lydia G. Giberson, industrial psychiatrist of the Metropolitan Life Insurance Company and a pioneer in the field.

Dr. Giberson, a Canadian-born scientist who took her present post eleven years ago and since has campaigned nationally for the sociomedical program in industry, is seeing the groundwork laid by herself and other trail blazers now being widely studied for inclusion in the war production system in her additional capacity as a consultant to the Office of Emergency Management at Washington. She is averaging two days a week in conferences at the capital and also maintaining her contacts with other organizations taking part in the program.

"Virtually all the government agencies and an increasing number of industrial groups have now recognized the importance of proper safeguards and controls for maladjusted emotions of war workers," Dr. Giberson said, "and it is inevitable that something effective will be done despite the current lack of a complete program and rounded organization. . . .

Cites Pressing Dangers

"The dangers of our war-time industrial upheaval are only too evident and immediate. Hysteria, excessive fatigue, emotional maladjustment, use of marginal labor groups, crudities of green authority, racial antagonisms, propaganda, subnormal housing, uprooted social patterns, and fear of bombings are problems fully admitted. Psychiatric conservation of manpower is urgently needed."

Details of any large-scale and coordinated measures for application to American industry of a science that has been largely restricted to the comparatively wealthy remain to be evolved, but it is anticipated that a considerable contribution will be made by presently active industrial physicians.

Their scope and responsibility would be broadened under tentative plans to provide the psychiatric services of listening to workers' woes (in itself a valuable therapeutic aid), tracing the emotional complications of routine medical patients, diagnosing industrial trouble spots, recognizing the obvious maladjusted types, spotting accident repeaters, helping to prevent maladjustment by advice—partly by bringing the extra-industrial factors to bear on any interpretation of employee difficulties—and conserving manpower and upholding morale through fighting to secure medical immunity for the emotionally ill.

Dr. Giberson in her government work has noted the emergence already in this country of "war types" of sick personalities earlier familiar to England. She describes some of these as "(1) the upset ritualist, who, having lost his balance wheel, wears a ruffed temper until he can surround himself with a settled routine; (2)

the excited enthusiast, who burns himself out quickly and does his best to persuade others to do likewise; (3) the emotional expansionist, usually a quiet and even prim fellow, who becomes obscurely excited by war dangers and plunges into all sorts of uncharacteristic excesses including drunkenness and wasteful spending; (4) the *nouveau* bellicose, who suddenly finds a voice and proceeds to exaggerate every topic with a blood-thirsty animosity, his government and the war effort included; and (5) the deaf-static, who is deeply alarmed by the turbulency and danger and yet closes his mind to them by hugging the familiar things of a safe existence so feverishly that there is no juice left in them for him."

Curative Setup Lacking

These obviously are behavior patterns and not mental or emotional types, she added, but are no less important, and their detection and care are extraordinarily difficult through the present dispersed procedures.

Furthermore, under the stress of war industry's pace, following the common economic and engineering conception of the worker as a mere handle to a machine in pre-war industry's mushroom growth, mere "drives," appeals to "morale," and "recreation" projects hardly will fill the need, Dr. Giberson says. There must be, she declares, tested procedures of synthesized medical and psychiatric practice to combat what she calls the "emotional blackout" of the man who, although in his off-the-job life a fully rounded individual, becomes within the factory gates a "selfless unit employing only a fraction of himself, working with another man's tools on a product which will not bear his name and whose function he barely comprehends."

Actually, she said, some 25 per cent of pre-war workers would have benefited, as well as their employers and the community, by psychiatric attention, even though they did not come within the classification of the psychotic. The pressures of the war, she believes, will move this figure up to 40 per cent.

Dr. Giberson, who is a frequent speaker on women in war industry, does not share altogether the gloomy views of some sociologists respecting the predicted employment soon of an additional 5,000,000 women in war industries. Despite the by products of increased family dislocation, lessened mother care of children, and similar phases, wholesale war employment will bring to American women, she says, a basic progress of unprecedented proportion.

Creator of Stability

"Women," she said, "have been demanding equality, and the war emergency provides an opportunity for them to take equal responsibility too. It is doing more for women's stability than anything else in providing an outlet for the pent-up strains of the defense period and those that have followed through restoring the pioneer virtues of work and sacrifice and in providing self-expression through independence. This is a people's war and the front is everywhere. There

[Continued on page 180]

*New York Herald-Tribune, October 4, 1942. Reprinted with permission.

Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selections for review will be based on merit and interest to our readers.

RECEIVED

Vascular Sclerosis with Special Reference to Arteriosclerosis. Pathology, Pathogenesis, Etiology, Diagnosis, Prognosis, Treatment. By Eli Moschcowitz, M.D. Octavo of 178 pages, illustrated. New York, Oxford University Press, 1942. Cloth, \$3.75.

Sex Hormones. Edited by F. C. Koch and Philip E. Smith. Volume IX of Biological Symposia. Octavo of 146 pages, illustrated. Lancaster, The Jaques Cattell Press, 1942. Cloth, \$2.50.

Communicable Diseases. By Nina D. Gage, R.N., and John F. Landon, M.D. Third edition. Octavo of 458 pages, illustrated. Philadelphia, F. A. Davis Company, 1942. Cloth, \$3.50.

American Surgeon Abroad. By Richard A. Leonardo, M.D. Octavo of 235 pages, illustrated. New York, Froben Press, 1942. Cloth, \$2.50.

Eat What You Want! A Sensible Guide to Good Health Through Good Eating. By W. W. Bauer, M.D., and Florence M. Bauer. Octavo of 263 pages. New York, Greenberg Publisher, 1942. Cloth.

Night of Flame. By Dyson Carter. Octavo of 337 pages. New York, Reynal & Hitchcock, 1942. Cloth, \$2.50.

A Venture in Public Health Integration. The 1941 Health Education Conference of the New York Academy of Medicine. Octavo of 56 pages. New York, Columbia University Press, 1942. Cloth, \$1.00.

Practical Survey of Chemistry and Metabolism of the Skin. By Morris Markowitz, M.D.

Octavo of 196 pages. Philadelphia, The Blakiston Company, 1942. Cloth, \$3.50.

A Handbook on Diseases of Children Including Dietetics and the Common Fevers. By Bruce Williamson, M.D. Third edition. Duodecimo of 364 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$4.50.

Mental Illness: A Guide for the Family. By Edith M. Stern. Octavo of 134 pages. New York, The Commonwealth Fund, 1942. Cloth, \$1.00.

Medical Clinics of North America. Volume 26, No. 6. November, 1942. Octavo. Illustrated. Philadelphia, W. B. Saunders Company, 1942. Published Bi-Monthly (six numbers a year). Cloth, \$16 net; Paper, \$12 net.

Public Health and Preventive Medicine. By Morton C. Kahn, M.A. Volumes One and Two. (Oxford Medical Outline Series.) Octavo of 534 pages. New York, Oxford University Press, 1942. Cloth, \$4.00 per set.

Gynecologic Surgery. By Morris A. Goldberger, M.D. (Oxford Medical Outline Series.) Octavo of 164 pages. New York, Oxford University Press, 1942. Cloth, \$2.00.

Urology. By William H. Mencher, M.D. (Oxford Medical Outline Series.) Octavo of 204 pages. New York, Oxford University Press, 1942. Cloth, \$2.00.

Diseases of the Gastro-Intestinal Tract. By Asher Winkelstein, M.D. (Oxford Medical Outline Series.) Octavo of 195 pages. New York, Oxford University Press, 1942. Cloth, \$2.00.

REVIEWED

Principles of Extraperitoneal Caesarean Section. By James V. Ricci, M.D., and James P. Marr, M.D. Octavo of 224 pages, illustrated. Philadelphia, The Blakiston Company, 1942. Cloth, \$4.50.

In this book the authors discuss in detail the anatomy and technic of extraperitoneal caesarean section. Its indications are not discussed. The history of the development of this operation is completely presented; in fact, it is so well done, so clearly, and in such excellent sequence that it is very easy reading.

The authors state that E. W. Cartwright of Pasadena deserves the credit for the Water's operation, which has lately become so popular. Ricci's own operation, which does not differ greatly from the Water's technic, is described, but his illustrations are not so good as those of Water's. Ricci prefers the Pfannenstiel incision, dislodges the fetal head from below, and packs the vagina stiffly with iodoform gauze before making his incision.

Piquant sentences like "DeLee piped a eulogy to craniotomy" and "Data was rebashed in a somewhat sketchy form by L. C. Phaneuf" add nothing. Errors like "W. C. Danford," "entrotitus," "laparotomized," "cesareanized," and "operated" are unfortunate. However, the book is good reading for the serious obstetrician.

CHARLES A. GORDON

Dermatologic Therapy in General Practice. By Marion B. Sulzberger, M.D., and Jack Wolf, M.D. Second edition. Octavo of 632 pages, illustrated. Chicago, Year Book Publishers, 1942. Cloth, \$5.00.

The average medical practitioner of today has been taught less and usually knows less of dermatology than of any subject in the category of medical knowledge. And yet, in active practice diseases of the skin are met with too frequently and too often to warrant this meager preparation. Those who have had some train-

ing as students may gain some valuable knowledge in the diagnosis of the commoner diseases of the skin, but of what benefit to the patient is the identification of the disease if the physician's skill stops there? Once the diagnosis is made, recourse to one of the textbooks or some formula may indicate a dozen remedies, but how few of them are explicit in describing how the remedies should be applied! The first edition of this work took its place very quickly as a handbook on the subject, and the new edition still further enhances its value as such.

The first three parts of the book are given over to the principles of diagnosis, topical medication, the uses of the physical agents, and general medical management. These chapters alone constitute a training course in clinical management of the greatest assistance to those who have not enjoyed the benefit of attendance in one of the larger dermatologic clinics.

Space will not permit of the exposition of the many and indispensable suggestions, proved prescriptions, short cuts, and clever methods for preparing and applying dressings which this volume holds. The illustrations are many and excellent. It is impossible to conceive of a textbook better fitted to supply the proper dermatologic information to those of our number who are now being drawn into war work, and it is pleasing to note that Admiral Ross T. McIntire, Surgeon General of the Navy, has seen fit to recommend this book.

Among the special subjects that Dr. Sulzberger's extraordinary training has best fitted him to write on are allergy and the treatment of syphilis.

NATHAN THOMAS BEERS

Personality and Mental Illness. An Essay in Psychiatric Diagnosis. By John Bowlby, M.D. Octavo of 280 pages. New York, Emerson Books, Inc., 1942. Cloth, \$2.75.

New approaches to the study and understanding of personality deviations are always welcome and oftentimes illuminating. This is true of Dr. Bowlby's discriminating analysis and formulations for better realistic and practical evaluations of varying degrees of mental illness. The author has ingeniously and critically brought to the front telling personality traits of mentally sick persons, rather than their symptoms, as a basis for bringing order into psychiatric diagnosis and classification. His method is clearly illustrated by several charts which give details of specific personalities. He groups them: "schizoid traits," "nonspecific traits (depressive)," and "nonspecific traits (hyperthymic)." It is significantly revealing how these charts with their plus or minus sign, and occasionally an asterisk, not only aid in crystallizing a diagnostic concept but also give prognostic implications.

We are indebted to Dr. Bowlby for courageously cutting through traditional clichés and conceptions of all-too-circumscribed diagnostic entities. On the basis of thorough case studies and follow-up notes of patients who came under his care, beginning at the Maudsley Hospital in 1933, the author clarifies the differentiating and blending relationships of psychoses to each other and also to neuroses. Clinical study in personality trait

charts, form the basis of a proposed new classification of the neuroses.

Specialists in psychiatry will be pleased to have this succinct, highly readable summary of the advances in psychiatric knowledge, and particularly the author's personal, unbiased criticism of outstanding contributions to psychiatric literature since the turn of the century. It is a book that especially appeals to the research worker in psychiatry, as well as to the clinical psychiatrist and to all those working in the field of personality deviations of the more or less pronounced type.

FREDERICK L. PATRY

Biological Symposia. A Series of Volumes Devoted to Current Symposia in the Field of Biology. Edited by Jaques Cattell. Volume VII, "Visual Mechanisms." Octavo of 322 pages, illustrated. Lancaster, The Jaques Cattell Press, 1942. Cloth, \$3.25.

This work is a high caliber report on recent advances in the physiology of vision. It begins with a discussion of the energy relation in vision, discusses the photochemical background of visual purple, reviews our present concepts of Vitamin A in relation to vision, and discusses the influence of oxygen deficiency in relation to the visual system. These chapters alone make evident the clinical possibilities of this technical subject, and the relation is further carried on in the following chapters having to do with the anatomy and physiology of the optic pathways and of functional organization of the occipital lobe.

Although this entire volume is definitely technical, and little of the work is done by ophthalmologists, it is, nevertheless, very understandable and certainly presents much useful material for the ophthalmologists.

The reviewer believes that work of this type forms a basis for progress in pure ophthalmology. The work should be in every ophthalmologist's library.

JOHN N. EVANS

Acute Injuries of the Head: Their Diagnosis, Treatment, Complications and Sequels. By G. F. Rowbotham, B.Sc. Quarto of 288 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$7.50.

This is a timely volume for the general surgeon who is frequently confronted with head injuries in these days of motor cars and war. Professor Rowbotham, having had extensive experience as a neurologic surgeon in peacetime, has, ever since the German attack, gathered much information on the open brain injuries characteristic of war.

The importance of teamwork between the neurologist, the psychiatrist, and the surgeon is emphasized and explicit details of diagnosis and treatment are given. His work has crystallized the thought of the English profession and led to the establishment of "head injury centers." We in America can learn much from this excellent example, but there is one important factor of difference here and abroad. Professor Rowbotham urges that all patients with serious head injuries be moved immediately to these centers,

holding that the transportation will do them no harm. Here where distances are so much greater, the reviewer feels, from his limited experience, that the patients will, on the average, do better if they are moved as little as possible even though this may mean less expert and less active surgical intervention.

A plan may be worked out in this country whereby the expert neurosurgical team could be taken to the patient, by air if necessary. If this should prove feasible, it would eliminate the added insult of moving patients with serious head injury and yet a large territory could be covered with a limited personnel.

WILLIAM H. FIELD

Medical Progress Annual. Volume III, 1942. A Series of Fifty-two Reports on the Recent Accepted Advances in Diagnosis and Treatment. Published during 1941 in *The New England Journal of Medicine*. Managing Editor—Robert N. Nye, M.D. Octavo of 678 pages, Springfield, Charles C. Thomas, 1942. Cloth, \$5.00.

The articles on medical advances, in the year 1941, which appeared in the *New England Journal of Medicine* each week, are here collected for the third time in a well-bound, moderately priced volume.

The papers cover a variety of subjects, from bacteriology to radiotherapy, and represent the opinion of outstanding men in Boston.

The volume is distinctly worth while and profitable reading.

ANDREW M. BABEY

Facts for Childless Couples. By E. C. Hamblen, M.D. Duodecimo of 103 pages, illustrated. Springfield, Charles C. Thomas, 1942. Cloth, \$2.00.

This little book with a very attractive cover is intended to educate the sterile couple. It bespeaks their cooperation with the physician they may consult, and tells them what to expect from him. In clear, simple style, anatomy and function are explained, and technical procedures are outlined.

This ABC of sterility is an excellent book for the physician to recommend to his patients. The general practitioner and the medical student will find it profitable reading, too. The standing and reputation of the author guarantee its accuracy.

CHARLES A. GORDON

First Aid, Surgical and Medical. By Warren H. Cole, M.D., and Charles B. Puestow, M.D. Octavo of 351 pages, illustrated. New York, D. Appleton-Century Co., 1942. Cloth, \$3.00.

This advanced guide to first aid put out by the University of Illinois is an excellent volume. It gives considerably more detailed facts on the usual topics covered by elementary manuals and is well illustrated.

ANDREW M. BABEY

[Continued from page 177]

isn't any place to run. A job for every man, woman, and child is the best safety valve for wartime emotional strain. Women show their best colors under stress, and this is no exception."

Dr. Giberson applauded the girls and women in service and volunteer uniforms, but added: "My respect goes, too, to the girl in overalls and goggles on the assembly lines. It is much harder

to check glamour in the factory locker and stay in a hard job."

For women troubled by war problems in industry or home, she says: "Try to keep your sense of humor. If you are doing all you can in the war effort, don't deny yourself normal relaxations and a new hat. Find comfort in sacrifice and working for victory. Return to the simple things. All must work, and none must weep."



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Tuberculosis and the War—Here and Abroad*

The United States

The world conflict of 1914–1918 for the first time revealed tuberculosis as a major problem. From the early discovery of large numbers of tuberculous troops in the French army to the final assemblage of mortality records of the war years in the civilian population of all countries engaged, it was evident that tuberculosis was exacting a great toll, unrecognized in the wars of previous years. There is every reason to believe, however, that long wars accompanied by privation have always led to increase in tuberculosis. Crowding, malnutrition, exposure to infection and hardship of every sort have been considered responsible in different degree.

Fortunately, a quarter of a century of research since the last World War has led to a better understanding of methods for control of tuberculosis. Countries fearing the ultimate outbreak of hostilities, through the tense years preceding their final advent, anticipated tuberculosis as a grave menace and prepared accordingly. But in spite of forewarning and preparation, a rise in tuberculosis mortality rates appears already evident. Modern war is total war. Whole populations are engaged, through accelerated industry as well as actual combat.

In the present World War increasing effort is being made in the United States to avoid induction of soldiers with tuberculosis. Measures ensuring x-ray examination of practically all recruits admitted to the armed forces are in effect.

In the civilian population precautions are being taken against nutritional deficiency, since it is almost universally believed to have important bearing on the problem of resistance to tuberculosis. However, malnutrition may not be the gravest predisposing factor in a rise of tuberculosis. The acceleration of industry, leading to crowded quarters in industrial districts, brought about by the mass migration to industrial centers, has created another opportunity for widespread infection. It is evident that a grave menace exists of another world-wide recrudescence of tuberculosis. Its prevention will require vigorous effort against the spread of infection and all measures possible to maintain a high level of resistance to disease.

War and Tuberculosis, Esmond R. Long, Amer. Rev. of Tub., June, 1942.

Britain

To what extent the tubercle bacillus will repeat its former triumph of a generation ago in Britain cannot yet be properly gauged, but it has taken the initiative and the future course of events will be greatly determined by the effort put forward now by tuberculosis workers.

Deaths from respiratory tuberculosis increased about 6 per cent the first year of the war and 10 per cent the second, while the increase in deaths from other forms of tuberculosis was 2.4 per cent the first year and 17.6 per cent the second.

A considerable amount of infection is evidenced among the general population, particularly children, which means that either the

infecting dose is large, or the resistance low. Both causes may have operated in the first half of 1941 when the nightly bombing of towns and cities made contact infection probable and frequent. However, if the increase is found to have continued since more normal conditions have prevailed, it will strengthen the idea that there has been a general lowered resistance to infection in children under five. Many factors can have contributed to the lowering of resistance in children, among which are change in diet, non-pasteurized milk, blackout and shelter conditions and lack of sleep and rest.

Comparing the trend of events during the first three years of the last war and available figures for World War II, a definite similarity can be traced, although living conditions now are probably more conducive to the spread of tuberculosis. However, there are some marked differences. Tuberculous meningitis has increased sharply, whereas in the corresponding period of the last war it fell almost to the pre-war level. A further point of difference is the small variation between the male and female curves.

These are ominous signs which mean that infection is lurking in hidden places taking its toll, especially in infant lives, and which emphasize the urgency of means for discovering these nests of infection and the need for their adequate control.

A Further Review of Tuberculosis in Wartime, F. Heaf and L. Rusby, Tubercle, May, 1942.

France

Food rationing started throughout France on October 1, 1940, when the following foods were restricted: bread, meat, cheese, fats, sugar, milk, chocolate and milled products. Technically other foods could be obtained, but in reality it was difficult to get them. The results of a survey carried on by the Institut des Recherches d'Hygiène on how different families of Paris were feeding themselves showed a total caloric insufficiency of about a thousand calories daily, a calcium deficiency and a calcium-phosphorus imbalance and an insufficient intake of Vitamin A.

Undoubtedly morbidity and mortality from tuberculosis have noticeably increased in Paris. The percentage of rapidly developed tuberculosis has gone up in an alarming manner. Comparing the figures of the first six months of 1941 with the corresponding ones in 1939, the mortality from tuberculosis increased 10 per cent.

Four basic diets were prescribed for sick persons in four specific categories. To lessen the ill effects upon persons with active tuberculosis and known lesions, a diet was given which corresponded to their general category, plus a supplementary amount of 45 Gm. of meat and 15 Gm. of fat daily per patient. Despite the precaution indicated, the march of tuberculosis up to October, 1941, had been ominously progressive; thus if the present dietary regime continues and the consequences increase, the problem of tuberculosis in France will be exceedingly grave.

Food Rationing and Mortality in Paris, 1940–1941, Ramon F. Minoli, Milbank Memorial Fund Quarterly, July, 1942.....

* Tuberculosis Abstracts—A Review for Physicians, Issued Monthly by the National Tuberculosis Association, 16: No. 1 (January) 1943.

THE PHYSICIANS' HOME

WHO STARTED IT? A group of physicians in 1918. They recognized the tragedy of their colleagues who were destined to go to local or state charitable agencies. The purpose was to establish and create means, to offer help, and maintain self-esteem for those deserving professional men and women. *THE PHYSICIANS' HOME represents the efforts of this group.*

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The *Saturday Evening Post*, receiving seven complaints about pages of the magazine falling out, decided to give readers a little light on the subject. So complainants might be advised how important this sacrifice of one staple in each copy is, they started computing the amount of metal saved. One staple saved in each copy, multiplied by the number of weeks in a year, multiplied by the circulation figure of three mil—but here the astronomical numbers started to "stump the experts," so they consulted the manufacturing department.

The editors learned that a three-stitched *Post* had required some forty-five tons of wire a year, so the annual one-stitch saving amounts to one-third of that, or fifteen tons—enough steel for one thousand 105-mm. shells. Multiply the saving by the thousands of periodicals and booklets published in the United States and you will find enough material salvaged before it becomes scrap to help put teeth in a great number of vital weapons.

Remember this when "the leaves begin to fall" from your favorite publications and don't think harshly of the publisher. And don't scoff at any effort to save material for more serious purposes—no matter how insignificant it may appear on the surface.

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Honor Roll

Medical Society of the State of New York

Member Physicians in the Armed Forces

Supplementary List

The following list is the second supplement to the Honor Roll published in the December 15 issue. The first supplement appeared in the January 1 issue.—*Editor*

A

Abelson, L. C.
325 Beach 69 St., Arverne, N.Y.
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632—2 St., Brooklyn, N.Y.
Ainsworth, R. C.
2634 Genesee St., Utica, N.Y.
Alderman, H. R.
Lewiston, N.Y.
Aldrich, T. M.
1739—4 St., Rensselaer, N.Y.
Alexander, F. A. D.
Albany Hosp., Albany, N.Y.
Allison, D. M.
Camden, N.Y.
Allison, W. E.
Camden, N.Y.
Anna, W. M.
58 Main St., Lockport, N.Y.
Antony, A. T.
429 Clinton Ave., Brooklyn, N.Y.
Apostle, D. K.
98 Ft. Greene Pl., Brooklyn, N.Y.
Argue, J. F.
Wilson, N.Y.
Arkwright, R. M.
Huntington, N.Y.

B

Babcock, J. W.
20 E. 53 St., N.Y.C.
Badeen, M. J.
Millerton, N.Y.
Baker, D. C.
180 Ft. Washington Ave., N.Y.C.
Baker, L. J.
310 Franklin St., Ogdensburg, N.Y.
Bancks, H. R.
515 Ocean Ave., Brooklyn, N.Y.
Bardello, A. A.
3 Saccio St., Batavia, N.Y.
Barresi, C.
Silver Creek, N.Y.
Bastable, C. M.
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Belser, J. W. (Capt.)
351 F.A. Med. Det., Camp Livingston, La.
Benson, C. S.
109 Murray St., Binghamton, N.Y.
Berens, A.
263 Eastern Pkwy., Brooklyn, N.Y.
Berg, H. W.
75 Willett St., Albany, N.Y.
Berkman, W. H.
1878 Gerritsen Ave., Brooklyn, N.Y.
Bernhardt, A. A. (Capt.)
13 C.A., Ft. Barrancas, Fla.
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8 Med. Bn., A.P.O. 8, Ft. Leonard Wood, Mo.
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Chestertown, N.Y.
Blum, L.
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Blumen, D. (Capt.)
199 Rutledge St., Brooklyn, N.Y.
Bomse, E. M.
1245—50 St., Brooklyn, N.Y.

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Elm Ave., Delmar, N.Y.
Bovet, D. W.
Marion, N.Y.
Bridgham, S. W. (Capt.)
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Bronitsky, J.
1676 Sterling Pl., Brooklyn, N.Y.
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State Office Bldg., Albany, N.Y.
Brumley, S. J. (Lt.)
Station Hosp., Keesler Field, Miss.
Brunetta, N. G.
101 Cooper St., N.Y.C.
Brust, J. C. M. (Lt. Com.)
U.S. Naval Hosp., U.S.N.R., Phila., Pa.
Bullard, R. D.
505 Broadway, Saratoga Springs, N.Y.
Burgess, H. W.
57 Grove St., Brooklyn, N.Y.
Buscaglia, J. J.
812 Niagara St., Buffalo, N.Y.
Buscicchi, E. J. (Lt.)
181 B St. c/o Davis, Salt Lake City, Utah
Buttitta, R. I.
160 E. 89 St., N.Y.C.

C

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Lowville, N.Y.
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191 Glen St., Glens Falls, N.Y.
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1101 Ditmas Ave., Brooklyn, N.Y.
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Branchport, N.Y.
Carpenter, E. W.
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Carr, H. A.
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Case, O. J.
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Alexander, N.Y.
Catullo, D. H.
15 Rossiter Ave., Yonkers, N.Y.
Cavanagh, H. E. A.
100 Highgate Ave., Buffalo, N.Y.
Cellino, J. F.
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Centerwall, E. T.
Morrisville, N.Y.
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Adams, N.Y.
Chamberlain, F. W.
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324 Caroline St., Ogdensburg, N.Y.

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New Hartford, N.Y.
Claxton, E. G.
217 State St., Ogdensburg, N.Y.
Cohen, F. (Capt.)
407 Keap St., c/o S. Cohen, Brooklyn, N.Y.
Colonnell, W. J.
38-13 Bowne St., Flushing, N.Y.
Comstock, E. F. (Lt. Com.)
U.S. Naval Training Sta., Sampson, N.Y.
Corrigan, J. E.
Patchogue, N.Y.
Corwith, A. E. (Capt.)
Percy Jones Gen'l Hosp., Battle Creek, Mich.
Costigan, T. J.
48-52 45 St., Woodside, N.Y.
Craig, J. D.
108 E. 68 St., N.Y.C.
Crowder, R. M.
Albany Hosp., Albany, N.Y.
Cummings, H. R.
1522 Mohawk St., Utica, N.Y.
Cunningham, J. E.
Warrensburg, N.Y.
Custer, B. S. (Maj.)
Westover Field Sta. Hosp., Chicopee Falls, Mass.
Cuthbert, R. B., Jr.
Canastota, N.Y.

D

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D'Angelo, J. G.
110 S. Portland Ave., Brooklyn, N.Y.
Dankberg, J. (Capt.)
Station Hosp., Camp Forrest, Tenn.
Daversa, B. (P.A. Surg.)
U.S. Coast Guard Barracks, Seaside Hqts., N.J.
Davidson, M. L. (Lt.)
30 Med. Regt., Camp Barkeley, Tex.
Davis, C. E. (Capt.)
731 Med. Sanitary Co., Ft. Dix, N.J.
de Rouville, W. H.
20 Willett St., Albany, N.Y.
De Witt, V. B. (Lt.)
68 Med. Regt., Camp Forrest, Tenn.
Dickson, W. B. (Lt. Com.)
Naval Hosp., Naval Op. Base, Norfolk, Va.
Dier, H. H.
Lake George, N.Y.
Di Gregorio, N. J.
1583 Bay Ridge Pkwy., Brooklyn, N.Y.
Dodge, B. L.
Bainbridge, N.Y.
Doran, R. E.
336 Main St., Geneva, N.Y.
Dunigan, J. T. (Lt.)
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[Continued on page 186]

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Mary Elizabeth Parker (*New York Times*, Dec. 20) remarked that economists may frown on the huge outlay for cosmetics in wartime, but the specialists in matters of morale take a different view.

Mentioning the \$517,500,000 spent in this country during 1941 by our women for paints, powders, and perfumes, Miss Parker intimated that the 1942 expenditure for beauty products will surpass even that tremendous figure. Statistics on such frivolous matters compiled by the Federal Reserve Bank estimated that women bought 10 per cent more powders and lotions in October, 1942, than during the same month of the preceding year. In defense areas the increase was even greater.

"The question is," said Miss Parker, "is beauty worth it?" To find some justification for such seeming waste, the results of a poll of male opinion were reported.

C. A. Willard, deputy chief of the Cosmetics Branch of the W.P.B., voiced the opinion—"Good heavens, most of it doesn't do any good, anyway! We'd hardly want to sacrifice the war effort to a tooth whitener."

Mayor LaGuardia's opinion was "don't like the red stuff on fingernails, anyway."

But men engaged in the nation's war industries did not agree with such thoughts. John Happel, Jr., a chemical

engineer, working on the development of synthetic rubber, said—"Yes, of course it is justified. We probably spend a heck of a lot more on cigars and cigarettes—and the results aren't nearly as attractive."

A flight instrument engineer declared a half a billion is well worth it. "Every girl in our plant wears make-up and it looks darned nice. It really gives you a lift every time you go into the shop."

Service men in the Navy and Coast Guard also said they thought the expenditure was worth while, but "they ought to taper off on lipstick—wear the kind that doesn't come off." And a half a billion was a little too much.

Professionals in the matter of morale were more lenient. Dr. Iago Galdston of the Academy of Medicine termed the woman's make-up as an "essential non essential." One of the greatest threats to civilian morale, he felt, is the interruption of familiar personal routines. "After all," observed Dr. Galdston, "neckties aren't exactly essential either. And yet no one has put a taboo on them—even in England. And you know they kept right on showing motion pictures over there, even during the very worst periods of bombing."

[Continued on page 187]

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[Continued from page 185]

A physician and consultant to the Medical Information Bureau believed that vanity is an indestructible feminine instinct which might just as well be reckoned with. "If you want an idea how essential this instinct is, just look how the average woman will juggle her budget to include cosmetics," he said. "That's a fair index. She would rather have a lipstick than eat, if it comes to a choice—and often the lipstick will be an expensive one."

A psychiatrist, Dr. Richard Hoffman, contended that applying lipstick and powder is like laughter—it belongs on the "plus side" of emotional experience, meaning that it produces a stimulation of the thyroid and adrenal glands, a restoration of sugar to the blood and actually serves to counteract fatigue. "Efficiency engineers," Dr. Hoffman pointed out, "have discovered that because of these strange chemical occurrences, a dressing room established for primping purposes in a busy factory may improve efficiency to the extent of 10 or 15 per cent."

This contention has been substantiated by the experience of the British. At the beginning of the war, in order to effect economies in war materials, the British Government restricted the manufacture of cosmetics to one-fourth of peacetime production. The result was a decline in war factory records and an increase in ill

health largely due to "bootleg" cosmetics that were oftentimes injurious. When cosmetic stations were established throughout the industries, the production curve soared immediately and increased numbers of women flocked to the war factories to work. A recent regulation order that girl workers in British munition plants shall wear and apply cosmetics three times a day as protection against infection and discoloration. Cosmetics for this purpose are supplied by the Government.

Here we expect to benefit from the experience of the British in this matter as we have in so many other war problems. If there is to be any restriction at all, it is to be on the use of ingredients vital to fighting the war. To overcome this obstacle, our cosmetic chemists are unearthing a substitute for the missing ingredient—and sometimes even a substitute for the substitute.

"As long as the women of this country continue to want cosmetics—and they always will—the chemists will continue to supply them," declared the research director of one of America's largest drug houses. "Gradual evolution in buying habits may come about. There will probably be more preparations of the sensible, protective sort. That means fewer throat bleaches and eyebrow creams, and fewer fabulous prices paid for labels marked 'made-in-France.' But there will always be cosmetics."

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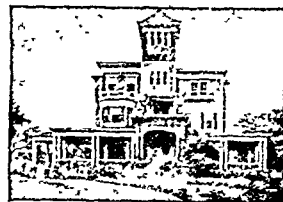
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"Therefore, every month it would deliver a total of 1,560 tons each way between those two points. An oil-burning locomotive pulling this train would consume 170,000 gallons of fuel oil during the month, which at 2 cents a gallon would cost \$3,400. The operating crew on such a freight train would number five men and the equivalent of four crews or twenty men would be required to keep the train running. Their total pay would be approximately \$5,000 for the month. The total operating cost of the train based on 1940 railroad experience would amount to \$50,000 for the month, which represents the cost of moving 1,560 tons by rail from Chicago to San Francisco, and another 1,560 tons from San Francisco to Chicago during the interval of a month, or two round trips.

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"Obviously, a single airplane could not make many round trips between Chicago and San Francisco a month's time. Normal operating experience would indicate 11 round trips per month per airplane as average. On this basis, 57 airplanes would be required to do the job of the freight train. During the month these airplanes would consume 1,500,000 gallons of gasoline, compared to the 170,000 gallons of fuel used by the train. The gasoline would cost a total of \$200,000 compared to the \$3,400 for fuel used by the train. For hundred pilots would be needed to fly the airplanes against 20 crew members used to keep the train running. The pilots would receive a total of \$200,000 in pay for the month, while the payroll of the train crew would amount to \$5,000.

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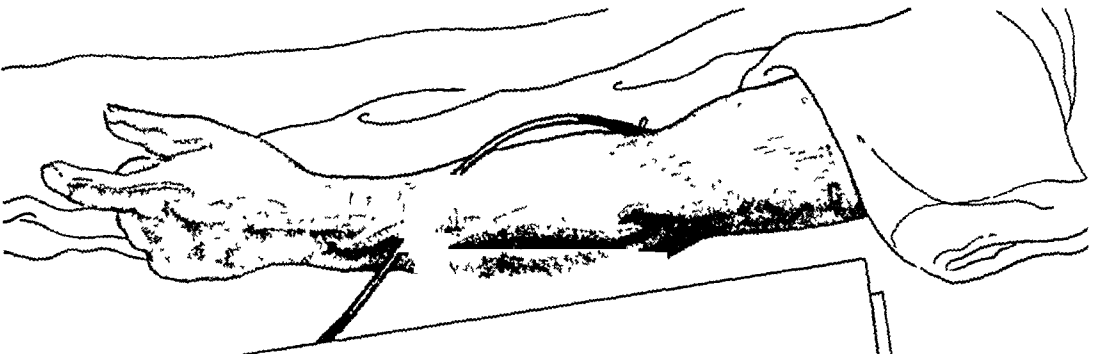
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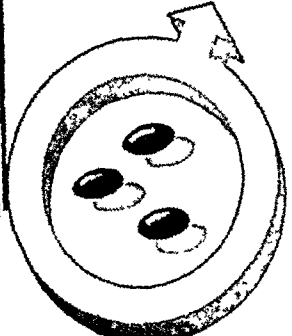
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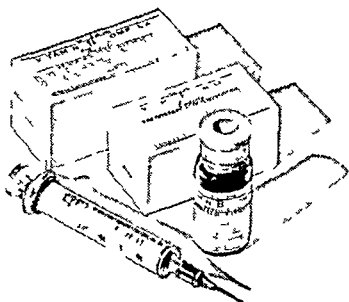
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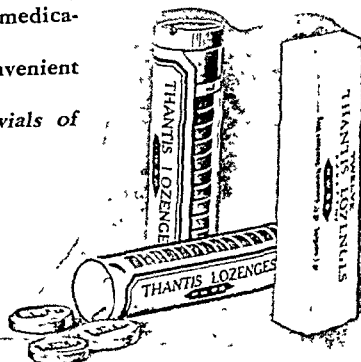
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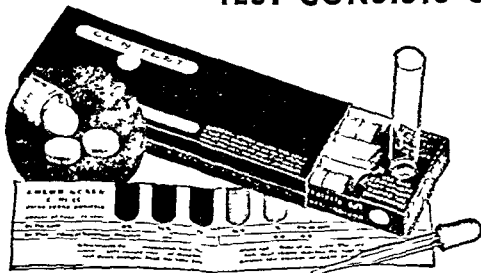
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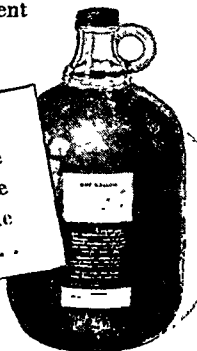
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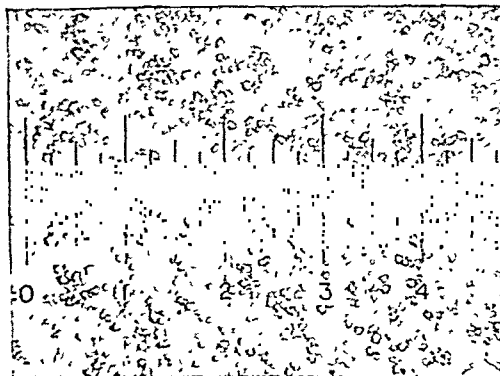
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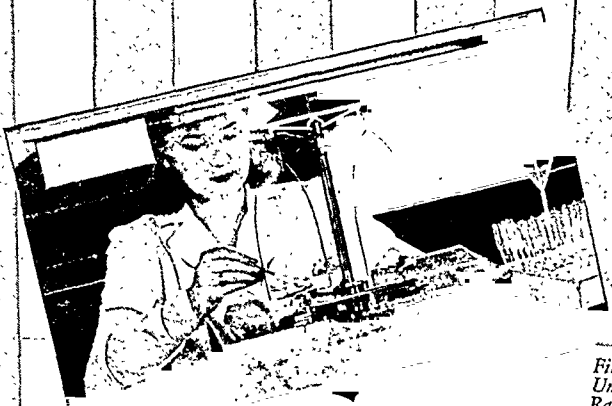
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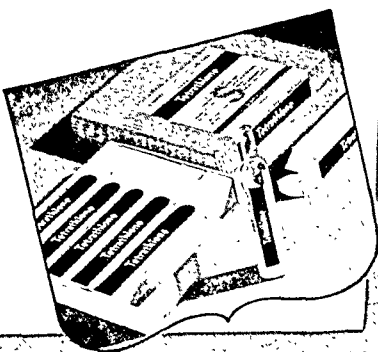
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¹ Fabricant, M. D. "Nasal Medication," Williams and Wilkins Company, October, 1942

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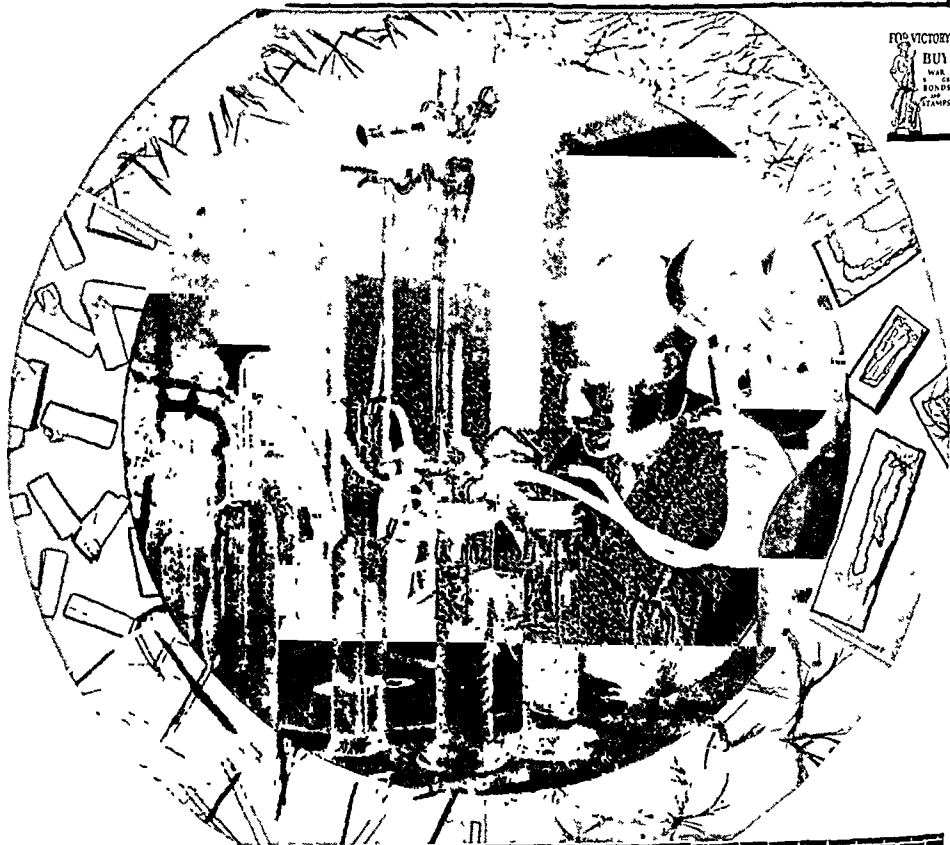
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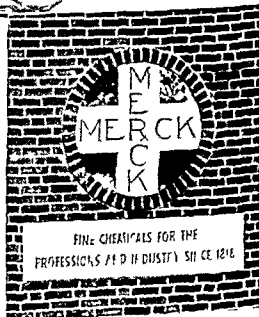
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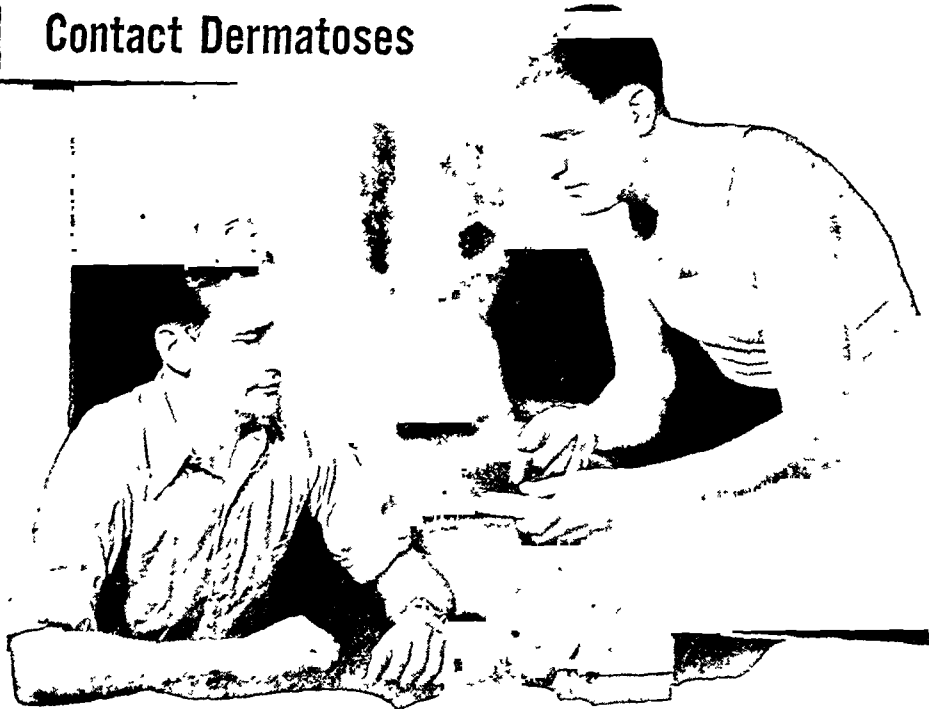
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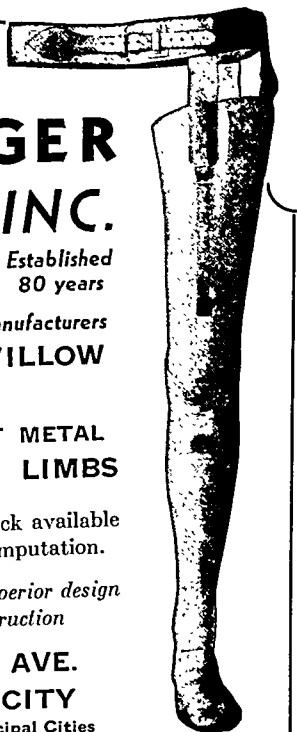
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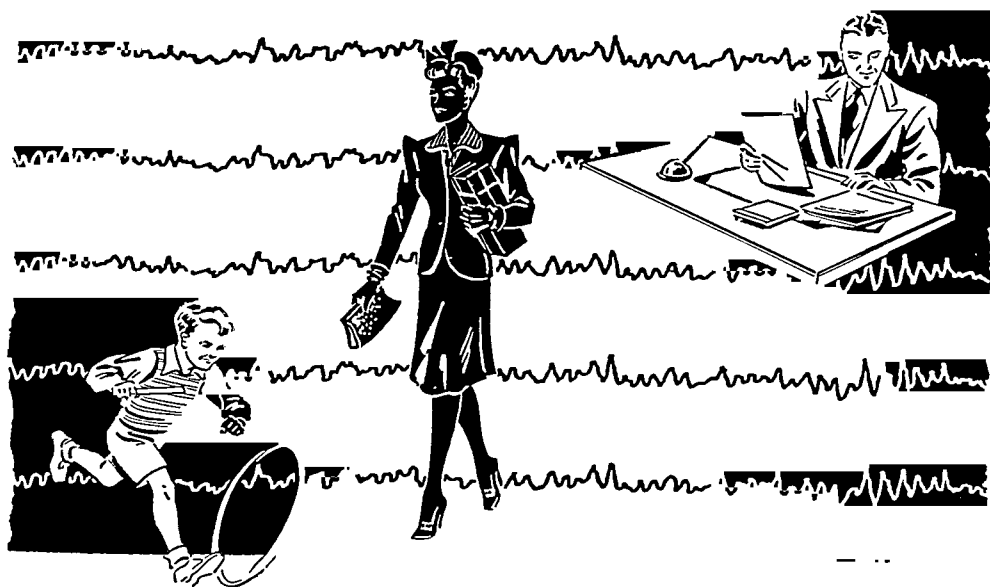


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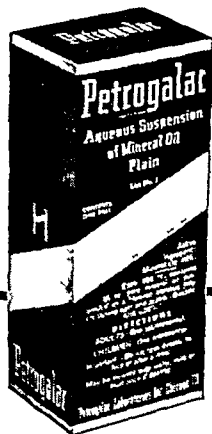
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VOLUME 43

FEBRUARY 1, 1943

NUMBER 3

Editorial

Annual Meeting

The 1943 Annual Meeting of the Medical Society of the State of New York will be held in Buffalo, May 3-6, 1943, at the Hotel Statler. It will be the second such meeting in wartime and should be attended by all who can possibly be there; yes, and even by those who for some reason think they can't! We know it will be difficult—use of cars restricted, train travel onerous, bicycles rationed, too far to walk, limited hitching and stable facilities for horses, too expensive to fly, canal boats and barges not running on regular schedules. Conditions were worse in grandfather's day, but he came in large numbers, and so will you.

Much has happened since we met in New York last spring, much that you will want to hear about: war medicine and surgery, new treatments, new instruments, changes in methods of practice, what the profession in various parts of the state and elsewhere is doing and planning to meet its particular needs. Invitations to attend have been

sent to the membership of the societies of neighboring states so that for the first time this year you will have the opportunity to meet those of our neighbors who can come. In a way, it promises to be rather a regional meeting, for some of the adjacent states have canceled their meetings or planned them at a different time of year or are holding them too far away. So you will see men and women from Pennsylvania, Ohio, Michigan, New Jersey, and possibly even Canada, as well as from the Empire State.

Make your plans now to come. Our exhibitors are putting forth a special effort in spite of transportation difficulties to show you what is new and how the old can be made to do. Later we shall tell you more of the scientific program, but just now we ask you to note the dates and to lay your plans to come. Buffalo, May 3-6, 1943—write it down *now* in your engagement book, then watch the JOURNAL for further announcements.

War and Social Reform, III

On January 6, 1943, Governor Dewey said, significantly, in his inaugural address: "In a rapidly changing industrial society, dislocation and reabsorption of workers is a continuous process. A broad and adequate social security program is required not only as an immediate measure but as a long-range policy." He said further, "The present

systems of unemployment insurance, workmen's compensation, relief, and welfare measures are now a patchwork. They must be integrated and broadened to provide increased service, including medical protection of the health of our people." He also recognized the increasingly grave problems of child welfare and their corollaries of juvenile

delinquency and a high crime rate, together with the difficulties being encountered by the state's mental hygiene institutions in the maintenance of proper care and supervision of their 90,000 inmates.*

In all of these problems the medical profession of the state has a vital interest. It is apparent that medical service, and especially the character and quality of medical service, is involved in every one of them. It is significant that broadening of the social security program to cover the human race "from the cradle to the grave" is become the new remedy, both state and national. We urge its intelligent use—while it still cures. And by "intelligent use" we mean so much broadening of the program as can be demonstrated to be necessary to meet an actual, not a putative or a propaganda-built need, and only so much as can be made to work practically. "Medical protection of the health of our people" might well be advanced by a greater integration of unemployment insurance, workmen's compensation, relief, and welfare measures. Much careful study seems necessary. We would not wholly agree that programs in these departments are patchwork. It is true that they have been developed through the years to a certain extent independently of one another, but at least as far as medicine is concerned there has been free and frequent consultation between the profession and state officials, with the result that in so far as the various programs have necessitated medical service, this has been furnished in a manner both realistic and practical.

This is not to say that improvement cannot be had by better integration. As a matter of fact, conditions brought about by the war make such improved integration all but imperative in the light of dwindling personnel, increased tax burdens, shortages of essential materials, and labor scarcity.

* **EDITOR'S NOTE:** See also the 1943 program of the Democratic Party as laid down by the late Governor Poletti (New York Times, December 30, 1942, page 1) which includes a "health insurance" plan financed by a payroll tax with employers, employees, and government all contributing, and, further, includes the cost of preventive medicine, hospitalization, and an income for the sickness period. It calls also for a \$10,000,000 program of child care for the 100,000 women of the state who are workers in industry.

We need, if medicine is to fulfill its part, as Dr. George W. Cottis has pointed out, more hospitals for the care of cancer patients, more convalescent homes to relieve the pressure on hospitals, extension of laboratory facilities, provision of diagnostic clinics in general medicine, more district or county health units.¹ These are the tools with which modern medicine works and without which it cannot reasonably be expected to improve or to expand its services to the public. Either ways must be found within the state to provide and assure these essentials or the "medical protection of the health of our people" will not be fully realized.

Dr. Arthur F. Chace, its president, and the New York Academy of Medicine have faced the "responsibilities that must be faced by medicine at a time when health and morale are inseparable."² In his inaugural address, Dr. Chace takes cognizance of post-war problems as well as immediate needs. He opens a way by which medicine with the resources that the Academy and other medical societies have available can lead the way in the study of social medical problems, of medical education, the effect of nutrition and the occupational environment on masses of people, the proper distribution of medical services, relocation of migrant populations, thus helping to lead the way for government and private initiative. Such research is badly needed. We must have the facts first, not generalizations; next, the facts must be scientifically interpreted and the actual needs ascertained. Those needs must then be fully and practically implemented by the public and private resources of the state.

The successful prosecution of a war or the effective evolution of social betterment is basically dependent upon the provision of modern, necessary, and well-planned equipment and methods. We must make better use of what we have, certainly; but, in addition, the state and the medical profession must plan together the expansion of medical service, the implementation of the medical aspects of proposed plans if these plans are to be laid within the framework of reality and thus be reasonably workable.

¹ New York State J. Med. 43: 26 (Jan. 1) 1943.

² New York Times, Jan. 8, 1943, p. 18.

Rational Rationing

One of the impressions gained by reading the testimony given before a subcommittee of the U.S. Senate Committee on Education and Labor, of which Senator Claude Pepper is chairman, as reported in the *J.A.M.A.*,* is that the numerical distribution of physicians with respect to population is the important thing in the maintenance of the public health, as far as government is concerned.

We concede that it is important, but it is not the whole story. The modern physician, both urban and rural, depends for his effectiveness upon hospitals, transport, electric power, and the willingness of the people in the area he serves to accept his services. Whether the question is one of bringing the physician to the people or group of people, or the people to the physician or group of physicians, communications are of primary importance. Living conditions, especially in winter, may be of the utmost significance with respect to the amount of disease occurring in a given area. Bungled rationing with respect to gasoline, tires, fuel oil, or power could materially alter the medical efficiency of physicians in a given area no matter what the numerical physician-to-population ratio might be. Similarly, a fuel oil and power shortage in another area might so suddenly increase the amount and severity of disease, so impair the efficiency of hospital operation that the physicians and hospitals, though numerically correct with respect to medical exponents and hospital beds in relation to population, might be unable to cope with the situation.

It would seem to us that to date no one has paid particular attention to the vital matter of medical effectiveness, which seems likely to become a larger problem as rationing becomes—as it must—more severe and more inclusive. We urge that it be not overlooked in the present concentration of thought on the matter of mere physician distribution. It is to be kept in mind also that as more and more of the young men go

into the armed services, the care of the civilian population will be carried on largely by the group of men 45 years of age and over. In the age group of 65 and over a "bare 30 per cent" are effective for all purposes; in the group of 45 to 54 there are 31,399 physicians; in the group of 55 to 65, 30,000 physicians. What could be considered the effectiveness of this group, 45 to 65, comprising 61,399 medical men? Examination of the men for the armed services showed a rapid increase in the number of physical defects for each decade. What significance has this fact when related to the effectiveness of this 45 to 65 age group?

There is no doubt that a physical examination of this group (45 to 65) would show a rapid decline in energy available for civilian population care with each additional decade above 45.

How will this affect the plans for distribution? Is one doctor per 1,500 of population sufficient regardless of the level of the physician group health in that area? What is the level of the physician group health in any given area? Does any one know? We doubt it.

These 61,399 physicians must last out the duration; there seems to be little prospect of increasing their number. Will we be as wasteful of our physician stock pile as we were of our rubber? As heedless of conservation until it is too late? There can be no synthetic physicians, remember. Isn't it about time we took stock of the group health of the 45 to 65 age group? Isn't it time now to see to it that every facility, for transport especially, and for maximum effectiveness of operation and practice be assured to this small group upon whom rests the responsibility for the national health? Wise planning can effect much benefit; tinkering with a system of medical practice in the middle of a war could be disastrous.

This is no time to be content with patchwork. Rational rationing and national planning are called for; let us have them, and let them be practical.

* *J.A.M.A.* 120: 927 ff. (Nov. 21) 1942.

Ulcerative Colitis—A Problem

Although they may offer no immediate threat to life, some diseases, by their protracted course, often cyclic, and by their meager therapeutic response, are disheartening to both patient and doctor. Such a disease is nonspecific, ulcerative colitis,¹ which by its very terminology indicates *its cause is still unknown*. Search for causative micro-organisms, parasites, and viruses² has yielded no generally accepted etiology. Inevitably allergic³ and psychiatric components⁴ have been suspected as primary agents. Experimentally, in dogs, obstruction of the lymphatic drainage of the ileocecal segment of the intestine has produced ulcerated lesions aggravated by the injection of nonpathogenic bacteria.⁵ When the causative agent is unknown, it is difficult to institute effective rational treatment.

Dietary treatment, stressing water, mineral, vitamin, and protein needs, while invaluable, is supportive but not curative. Chemotherapy, with the discovery of sulfaguanidine and sulfasuxidine, gave rise to great hopes only to lead to final disappointment.⁶ Various parenteral therapies and rectal irrigations have simply served to increase the number of agents tried in this disease. In addition, the ultimate mortality from ulcerative colitis is about 20 per cent.^{1,7} With few exceptions, the survivors suffer from poor health and are unable to perform their normal tasks.

Revelation of this unhappy state of affairs led enterprising surgeons to conceive the idea not of a desperate, last-stand ileostomy, but of resection of the involved colon. Obviously, operation is performed only after a careful medical study has eliminated the factors of allergy and infection, local and focal, and after a meticulous

dietary regimen has failed. Nutritional deficiencies, anemia, and faulty metabolism are corrected preoperatively. Operative indications and different technics for this procedure, as well as postoperative care, have been scrupulously detailed.^{1,7}

The published results of such operations seem to be an improvement over those of prolonged medical treatment. The mortality at present is no greater with surgical than with medical care. The great difference is the restoration to health and functional efficiency of the majority surviving the colectomy. Studies of colectomized patients have demonstrated that after an interval of about three months the functions of the lost colon are assumed by the dilated lower ileum, and the absorption of water and minerals, while not quite normal, becomes adequate.

No claim is made that this is the ideal cure, for a permanent ileostomy is never an object of pleasant contemplation. It is preferable, however, to the gradual deterioration of the unfortunate patient into a state of hopeless invalidism. Final judgment should be passed only after conference among the internist, gastro-enterologist, and surgeon, all expert in the intricacies of this problem. Ulcerative colitis is still a challenge to the medical profession.

1. Cave, H. W., and Thompson, J. E.: *Ann. Surg.* 114: 46 (July) 1941.

2. Paulson, M.: *Am. J. Clin. Path.* 11: 595 (July) 1941.

3. Andresen, A. F. R.: *Am. J. Digest. Dis. & Nutrition* 9: 91 (March) 1942.

4. Daniels, G. E.: *New England J. Med.* 226: 178 (Jan. 29) 1942.

5. Poppe, J. K.: *Arch. Surg.* 43: 551 (Oct.) 1941.

6. Bergen, J. A.: *New York State J. Med.* 42: 2014 (Nov. 1) 1942.

7. Elsom, K. A., and Ferguson, L. K.: *Am. J. M. Sc.* 202: 59 (July) 1941.

Correspondence

Therapeutic Abortion

To the Editor:

There are records of cases in which the Judiciary were unable to prosecute an alleged criminal abortionist because of the lack of knowledge or the indefinite wording of the present law. The existing phrase "to save a life" has a great deal of latitude. In the interest of the public and profession, a more detailed explanation of a therapeutic abortion should be made. With the progress medicine has made in the management of certain diseases, the indications for interruption of pregnancy are certainly fewer. It is, therefore, the aim of the writer to have introduced in the legislature a bill which provides a more specific definition of "therapeutic abortion."

Therapeutic abortion is the artificial interruption of pregnancy before the period of viability is reached. It is done only for those conditions in which the

continuance of pregnancy jeopardizes the life of the mother or aggravates the disease from which she suffers.

The treatment of many of the conditions which formerly were aggravated by pregnancy has been improved so much that they are now treated satisfactorily without interfering with the gestation. Therapeutic abortion, accordingly, is rarely justifiable. When it is indicated the operation should be performed in an approved hospital with all the precautions of a major surgical procedure, and the written opinion of two competent, qualified, and recognized consultants in the respective specialties should be incorporated in the hospital records.

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December 25, 1942

Forum on Therapy of Wartime Injuries

AT THE annual meeting of the Seventh District Branch of the Medical Society of the State of New York, held at Rochester on September 23, 1942, there was staged a forum on "Therapy of Wartime Injuries." Dr. Leo F. Simpson, member of the Emergency Medical Advisory Committee in charge of surgery, acted as interlocutor.

—Editor

BLOOD, BLOOD PLASMA, AND BLOOD SUBSTITUTES

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IN THE past few years great advances have been made in the therapy of war injuries, especially those that are due to hemorrhage, trauma, and burns. The most important of these newer procedures is in all probability the controlled transfusion of blood plasma and whole blood. By careful observation of the patient and his response to this type of therapy, an adequate blood volume can be maintained, hemoconcentration and tissue anoxia prevented, and shock either brought under control or averted. With this knowledge, the medical commissions of the Army, Navy, and Office of Civilian Defense have requested enormous amounts of blood plasma. The Blood Procurement Units of the Red Cross here and elsewhere have undertaken to meet this demand, and in the past year the Rochester Unit alone has donated some 38,000 units (equivalent to 38,000 pints of whole blood), for which they must be highly commended. The Red Cross Blood Procurement obtains the blood and delivers it for drying to large pharmaceutical houses under contract to the Army and Navy. The entire project is directly under control of the National Research Council through the National Institute of Health.

It is obviously impossible to review the tremendous amount of theoretic and practical knowledge on this subject in a short article. An attempt will be made to discuss whole blood and plasma from a practical viewpoint, with specific emphasis on the indications for use, methods of preparation, mode and control of administration, reactions, and methods of storage.

Whole Blood

1. INDICATIONS FOR USE

(a) *Replacement of Erythrocytes.*—Whole blood is used when it is necessary to replace erythrocytes, whether they be lost by hemorrhage, hemolysis, or failure of erythropoiesis. Hemorrhage is perhaps the most common of severe traumatic

injuries, and the most satisfactory treatment of it is the immediate transfusion of whole blood. Blood plasma may be used, but the number of available cells which can be removed from the erythrocyte pools in spleen and red marrow is inadequate. Hence, plasma can be used, but early transfusion of additional cells in the form of whole blood is the correct procedure, especially when large amounts of blood are lost.

(b) *Treatment of Burns in Late Stages.*—After the initial shocking phase of treatment is over, whole blood is usually necessary because of red cell destruction.

(c) *Treatment of Infection.*—Whole blood is particularly valuable in cases in which hemolytic organisms are well established.

(d) *Prothrombin Deficiencies.*—Control of deficiencies can be brought about by the use of fresh whole blood or plasma transfusion with elevation of the level toward the normal.

(e) *Treatment of Carbon Monoxide Poisoning.*—The fixation of carbon monoxide as CO-hemoglobin makes it useless as an agent for oxygen transport and also brings on massive hemolysis if recovery with oxygen is delayed or slow. Transfusion of new blood is an essential part of the treatment in severe cases.

(f) *Treatment of Hemorrhagic Diatheses.*—It is indicated in the treatment of hemorrhagic diathesis, particularly the purpuras and hemophilias. Hemorrhagic tendencies can be reduced and even controlled by the use of whole blood. The result is usually transitory. Reactions to whole blood may be severe in these cases.

2. DISADVANTAGES

- (a) Typing and cross-matching are necessary.
- (b) Reactions are more severe, and the reaction rate is higher.
- (c) The problem of storage and transport must be solved.

3. CONTRAINDICATIONS

- (a) Cardiac decompensation or known severe cardiac damage.
- (b) Cases of shock with marked hemoconcentration.

Read as a part of a symposium at the Seventh District Branch Meeting of the Medical Society of the State of New York, Rochester, New York, September 23, 1942.
From the University of Rochester School of Medicine and Dentistry, Rochester, N.Y.

4. METHODS OF PREPARATION AND USE

Very little discussion will be given on this familiar procedure. The careful typing and cross-matching of the blood of donor and recipient are necessary. The procedure of choice for these is the test tube agglutination at 37 F. for 30 minutes, approved by Landsteiner, Weiner, and Levine.

(a) *Direct Transfusion.*—Sterile precautions, requiring the use of syringes or an apparatus such as that devised by DeBakey, must be followed in direct transfusions. The blood is taken from the donor and immediately given to the recipient. If reactions are thought to be caused by the anticoagulant, this procedure may prove useful. For the apparatus method, heparin is usually necessary before an adequate amount of blood can be transfused.

(b) *Indirect Transfusion.*—In giving an indirect transfusion, the blood is put, again under sterile precautions, into a solution containing anticoagulants in varying concentrations. If blood is to be used within forty-eight hours, the standard 50 cc. of 5 per cent sodium citrate is adequate (or 100 cc. of 2½ per cent sodium citrate). If it is to be stored for varying periods of time, the glucose citrate (Rous-Turner) mixtures of either DeGowin or Elsever and Ainslee are satisfactory. In these mixtures, approximately equal volumes of anticoagulant and blood are used, giving a half-dilution of cells and plasma. If the supernatant plasma is later taken off, it will have only half the protein per unit volume. With the glucose-citrate mixtures, blood can be safely stored from ten to thirty days without appreciable increase in reactions.

5. ADMINISTRATION

In administration of whole blood, certain precautions should be taken. The blood should be given as taken from the storage refrigerator and should never be heated. Severe and even fatal reactions have been caused by heating whole blood. After passing through the tube of the recipient set, the blood will be sufficiently warmed for injection.

The patient should be under close observation during transfusions so that in case of a reaction the flow can be stopped and the necessary therapy instituted.

Blood should be transfused slowly. A drip indicator forms a useful guide for the rate of flow.

Adrenalin in 1:1,000 solution should be instantly available in case of a transfusion reaction.

6. REACTIONS

(a) *Pyrogenic* reaction may come during or immediately after the transfusion. Symptoms are a chill followed by fever of 101 to 103 F. persisting from two to six hours and subsiding spontaneously. These are caused by poorly cleaned

equipment containing various bacterial and protein breakdown products. The treatment can be summarized as none if mild; discontinue transfusion if severe.

(b) *Urticarial* reaction is a development of urticaria varying from a few wheals to generalized angioneurotic edema. The cause is unknown. They subside in from six to twenty-four hours and respond immediately to subcutaneous adrenalin.

(c) *Hemolytic* reactions are the most severe and are thought to be due to breakdown of red cells and packing of the kidney tubules with hemoglobin crystals. They occur following transfusion of incompatible blood. The symptoms are constriction of the chest, substernal pain, and dyspnea followed by chills, fever, and pain in the lumbar region. Later a shock state develops, with dyspnea and air hunger. Anuria occurs finally and is due to the packing of the kidney tubules with hemoglobin. These reactions may develop even after a very small amount of blood is transfused. No treatment is necessary in the absence of shock or anuria. Plasma may be necessary to combat the shock. The urine should be alkalized as rapidly as possible in order to dissolve the hemoglobin crystals.

(d) *Circulatory* reaction brings such symptoms as dyspnea, cyanosis, and the appearance of the early signs of pulmonary edema in chest examination. This effect is due to the overbalancing of the circulation by the introduction of added blood into the venous return. The treatment is phlebotomy and frequent venous stasis by the tourniquet.

(e) *Retinal hemorrhage* occasionally follows transfusion, with all the typical symptoms and signs. It is quite common in patients with blood dyscrasias. No treatment is prescribed.

(f) *Transmission of infection* occurs occasionally after transfusion, malaria being quite common. Oftentimes the organism may be dormant in the donor but induces the disease in the recipient. Syphilis may also be transmitted, especially when blood from the seronegative early case is given.

7. THE BLOOD BANK

Little comment is necessary on the functions of a blood bank. The majority of them are operated on a barter system with replacement of the blood used at an opportune time. Its great advantage lies in the availability of typed whole blood in the case of an emergency. It has value in fixed locations, but for a mobile group such as an army unit or a ship whole blood is rendered quite unsatisfactory because of its great bulk and its tendency toward hemolysis with constant movement. The problem of refrigeration presents

further difficulties, of course. Using the glucose-citrate solutions, it is possible to store blood for as long as fifteen days without appreciable rise in the incidence of reactions.

In the so-called blood and plasma bank, ordinary citrate anticoagulant is used, and if blood has not been used within forty-eight to seventy-two hours, it is centrifuged and the plasma removed with sterile precautions. The latter procedure will be discussed later in this paper.

In acute emergencies when time is an important factor, plasma has been the treatment of choice. In field emergencies with no laboratory facilities available, it is impossible to give whole blood safely. Some have suggested the use of all type O (IV) blood. However, in cases sufficiently injured to demand blood to that extent, the likelihood of reactions is also increased, and we do not recommend this procedure. Methods are available in which cross-matching can be done rapidly although these are by no means as satisfactory as the routine test-tube procedure.

Blood Plasma

1. INDICATIONS FOR USE

(a) *Shock*, if caused by hemorrhage, may be treated with plasma until whole blood can be obtained. In trauma and burns, it should be used in normal or half-concentration to support the blood volume and to prevent hemoconcentration. This treatment must be followed by hematocrit and specific gravity determinations for adequate control.

(b) *Hypoproteinemia*, whether it be due to inanition (high intestinal obstruction, etc.), faulty absorption of proteins (cirrhosis or infection), or excretion (nephritis, cirrhosis), may be treated by large plasma injections. This assures only a temporary benefit and then only by utilization of large amounts of plasma. The indication for plasma in such states is only to tide the individual over an acute emergency until synthesis of new protein can be resumed. Hence, it would be useless in chronic nephritis, cirrhosis, and the like. Experimental evidence confirms this supposition.

(c) *Hemorrhagic diatheses* will respond to plasma in a manner similar to that in which they respond to blood.

(d) *Diuretic action* may be obtained by the use of concentrated plasma in certain cardiac conditions and in nephritis when the accumulation of edema fluid is related to a relative hypoproteinemia and an increased blood volume. In such cases one should be very careful about the speed of injection of the hypertonic solution, as the blood volume may increase to such an extent as to cause cardiac failure.

(e) *Infections and toxemias* derive a definite benefit from the use of fresh plasma. The nature of the action is not known.

(f) *Immune bodies*.—The established benefit of plasma or serum in the prophylaxis and treatment of infectious disease is well known. The use in measles is a typical example.

2. ADVANTAGES OF PLASMA

(a) Requires no typing or cross-matching.

(b) May be preserved for long periods of time by freezing or by freezing and drying.

(c) Easily transported and stored.

3. TYPES OF PLASMA AND THEIR PREPARATION

(a) *Wet plasma* is prepared by the centrifugation of seronegative citrated whole blood and by removing the supernatant plasma. The plasmas from 8 to 10 donors are mixed in a large flask, this procedure or "pooling" tending to reduce the likelihood of transfusion reactions which might be caused by a high agglutinin titer in a single plasma. A measured amount of bacteriostatic agent, such as methiolate or phenyl mercuric nitrate, is added to each pool as a precautionary measure. This pooled plasma is then cultured for sterility and placed in 450 cc. bottles, 250 cc. being allotted to each. The amount of plasma in a single bottle is called a unit. These are then stored as wet plasma or frozen and are not to be used until cultures for aerobic and anaerobic organisms have been pronounced negative.

(b) *Frozen plasma* is prepared from wet plasma by freezing it in a bath or freezing compartment at a temperature of -30°C . or lower. After such freezing, it may be kept indefinitely without deterioration. Frozen plasma is easily and rapidly thawed in a water bath at 37°C . If allowed to stand at room temperature, a turbidity of the solution results. The time required to melt the plasma is from fifteen to thirty minutes. After thawing, the plasma may be refrozen without damage or denaturation of the protein.

(c) *Dried plasma* may be prepared in a number of ways, only one of which is approved, however, by the National Institute of Health. The accepted process, now being used almost exclusively for the drying of plasma for the Army, Navy, and Civilian Defense, is that of drying from the frozen state, a process known by the copyrighted name, "lyophile." "Desiccated or dried plasma" is the appropriate term for it.

The sterile pooled plasma is frozen very rapidly in a layer of uniform thickness in the standard plasma bottle (450 cc.). This is accomplished by revolving this bottle on its long axis in a bath of alcohol at approximately -65°C . Thus is formed a cylinder of frozen plasma with a wall of uniform thickness from which evaporation will take

place at a constant, steady rate. Covered with a gauze mesh, these bottles are placed in the drying chamber of the apparatus, which is then closed with a vacuum-tight seal. The chamber is evacuated down to a residual pressure of about 0.1 to 0.3 mm. Hg by the use of a mechanical pump. This low pressure is sufficient to keep the plasma frozen by evaporation of moisture from its surface. Next, heat is applied to the drying chamber in order to increase the rate at which the moisture passes off the layer of frozen plasma. The moisture is swept out of the bottles through a tube leading to the pump and is condensed from the system by refreezing against a very cold cylinder immersed in a bath of alcohol at -65°C . This process is continuous until the plasma is dried, a period of forty to sixty hours usually being required.

After the drying is completed, the plasma is then capped and its residual water content (usually less than 1 per cent) is measured; then a pilot bottle is reconstituted by addition of sterile water agitating to complete solution, and aerobic and anaerobic cultures are taken. A determination of the hemoglobin and protein content is made, and if the cultures are negative, it is released for use.

All the above plasmas can be used as normal and half-dilution plasmas. For half-dilution, an equal quantity of saline is added to the plasma. For normal plasma, in the case of the dried product, the original volume of solution (250 cc.) is added. In making concentrated plasma, one quarter of the original volume of distilled water is usually added to the dried plasma and placed in the solution.

4. ADMINISTRATION

The technic of administration is similar to that of whole blood except that the special Army-Navy-Civilian Defense setup is used. All plasma supplied by our laboratory will be furnished in these containers.

Necessary precautions in giving plasma are as follows:

- (a) Do not heat plasma above 37°C .
- (b) Inject plasma slowly, preferably with the use of a drip indicator. This is especially true of the hypertonic concentrated plasma which, by its marked osmotic effect, can cause precipitous rises in venous pressure.
- (c) Dried plasma should not be dissolved in Ringer's solution, as the excess calcium ion may induce spontaneous clotting.
- (d) Plasma showing extensive hemolysis should be discarded.
- (e) Transfusions of whole blood should not be given immediately after large amounts of plasma. There may be a troublesome rise in circulating

agglutinin titer of the plasma. This persists for as long as twenty-four hours in some cases. If blood is absolutely necessary, use the universal donor (type O-IV) after a cross-match of a careful nature.

(f) Do not give concentrated plasma in shock or burns, for it will have little or no effect and may even be deleterious.

5. REACTIONS

Reactions from plasma are similar in nature to those noted in whole blood transfusion. In our experience they have been much less severe.

6. THE PLASMA BANK

Many of the particulars concerning the plasma bank were discussed in the section on whole blood. Plasma may be stored in the three ways mentioned in connection with the preparation of whole blood.

If plasma is stored as wet plasma, a precipitate begins to form after about seven to ten days and gradually settles to the bottom, making the solution turbid. This does not prevent its use, but it may increase the likelihood of reactions. Hence plasma may be kept for about three to five days as wet plasma, after which, in our opinion, it should be frozen for further storage.

Frozen plasma must be stored at approximately -20°C . or less and will keep indefinitely in a cabinet at this temperature. This plasma must be thawed at 37°C . before use.

After drying, plasma will keep indefinitely at room temperature, providing that the moisture content is kept low. This may be done in several ways. The best process is to seal it in vacuum cans, as is done for the Army and Navy. The other is to cover the sterile rubber stoppers with plastic caps, thus excluding the air from the evacuated interior. To use such plasma the caps need only to be removed and water added according to directions found in the package. We do not know how long such plasma will remain good but certainly for a long period of time.

Blood Substitutes

No review of the therapeutic application of blood and plasma is complete without a brief account of the present status of the so-called blood substitutes. This includes the heterologous plasmas such as beef, the purified albumins and hemoglobin, digests and hydrolysates of proteins, and biologically foreign materials such as acacia, pectin, and gelatin.

For a little more than a year attempts have been made to use heterologous plasmas in the treatment of shock states. The results have been favorable in the immediate benefit of the shocked patient, but the per cent of reactions is very

high—20 per cent or more, with many being very severe. The incidence of reactions to a repeat dose is also high. Serum disease is common, as well as a persisting sensitivity to the foreign plasma.

Purified human albumin is being made from plasma that is contaminated, hemolyzed, or otherwise unsatisfactory for processing. The albumin is purified by a process of differential denaturation of protein with complete removal of the globulin fraction. The final product is concentrated (about 30 per cent protein) and has a high osmotic effect. The reaction percentage is relatively low. Clinical and experimental evidence at the present time, however, indicates that although an adequate blood volume can be maintained or even increased by mobilization of body water, the therapeutic efficiency is not as high as that of plasma. The explanation of this is not understood.

Purified beef albumin has been prepared in the same way. Its incidence of immediate reactions is low, but sensitivity and serum disease have been caused by this agent. The therapeutic effect is probably identical with that produced by the human albumin.

Although purified hemoglobin with a high immediate osmotic effect has been prepared, its low renal threshold prevents retention with excretion into the urine in massive quantities. This in the presence of an acid urine causes precipitation of the crystals in the kidneys and a resulting anuria which may prove fatal.

Digests and hydrolysates (enzymatic, acid, and alkaline) of casein, beef serum, and the like are now manufactured by many recognized pharmaceutical houses. They are useless in immediate emergencies, as for example, in the treatment of hemorrhage, trauma, or burns, but they are useful for parenteral feeding when food cannot be taken by the oral route. Reactions to these substances are moderately common.

Acacia in a 6 per cent solution is probably the most familiar of the blood substitutes and is universally used. It has, however, been the contributing cause of many fatalities, usually when used repeatedly over a long period of time. The deposition of the acacia in the liver parenchyma causes a breakdown of functioning liver cells, and if this takes place to a great degree, the outcome may be death from hepatic insufficiency. If used in the absence of blood plasma or blood, it should not be continued for a prolonged period.

Pectin and gelatin are the newest members of the family and are still in the experimental stage. Reactions are not uncommon and may be severe. The process of elimination of these substances is not well understood. Since this work was started, sufficient time has not elapsed to deter-

mine the latent effects of these substances when used in therapeutic amounts.

Present Status of Blood and Plasma Procurement for Civilian Defense in Monroe County

A short time ago the committee for blood and plasma procurement met to consider the problem of procurement in case of an emergency. All hospitals in Rochester were represented. At that time, because of the variety of methods of preparation and equipment in the individual institutions, it was felt that if small numbers of casualties were allocated to each hospital, the existing facilities would be adequate. It was also decided that the larger plasma bank at the Strong Memorial Hospital could furnish extra plasma to the other institutions up to a limited amount. Approximately 500 units of emergency plasma were established as the minimum amount necessary to take care of a small emergency in this area.

Since that time, through the cooperation of Dr. Arthur Johnson, head of the Health Bureau, Dr. Basil MacLean of Strong Memorial Hospital, and the Office of Civilian Defense Blood Procurement Group, equipment for the preparation of some 2,500 units of dried plasma for use in this area has been ordered. Much of this equipment is now on hand in spite of the difficulty with priorities, and some of the plasma is now dried and ready for use. Special kits have been designed and are on hand to simplify the procedure for those unfamiliar with the administration of plasma. Some of the funds for this project were furnished by the Office of Civilian Defense for purchase of equipment, and we are indebted to the Rochester Chapter of the Benevolent Protective Order of the Elks for funds to build the drying apparatus used in this project.

Through the cooperation of the Office of Civilian Defense an additional 500 units of frozen plasma with a storage refrigerator have been sent to this area and will be used in case of need.

Should an acute emergency arise, the Local Blood Procurement of the Red Cross would be able to furnish whole blood in the necessary amounts. This organization tentatively plans to release a weekly quota from its total bleedings to the plasma bank at the Strong Memorial Hospital for drying and storage. This will provide the plasma for the 2,500 units as described previously. The entire project for Civilian Defense is under the direct control of Dr. Fred A. Bryan, the regional technical adviser on blood procurement to the Office of Civilian Defense.

With this arrangement well on its way to completion, the City of Rochester and the Monroe County area should be well supplied with both plasma and blood in case of an emergency.

TREATMENT OF BURNS

JAMES S. HOUCK, M.D., Rochester, New York

THE problem put before the committee on the treatment of burns was that of adopting a routine that could be used to treat any number of patients at a given time. A disaster resulting from an act of war means many casualties. Each of the hospitals in Rochester can handle several cases of severe burns readily at any time, but with dozens, perhaps hundreds, flowing into their doors, how will they manage? Plans had to be shaped to meet this possibility, for it is distinctly not a question of how we would handle the individual case in civilian practice.

It is necessary that supplies be available in large amounts and that personnel be sufficient to care for a variable number. The City has designated fire houses as casualty units and is equipping these places with supplies. With a large number of depots such as these, it was important that the adopted routine be thoroughly standardized as simply and at the same time as effectively as possible. After a careful and deliberate survey of the accepted routines, it was concluded that despite the criticisms of tannic acid and silver nitrate, it met the requirements better, at least for the present, than the others. The statements that follow, therefore, are, in the judgment of this committee, representative of the details necessary to carry out this treatment satisfactorily.

In order that burn cases might be evacuated from the casualty stations rapidly, it was decided that *first aid only* be administered there—the minor burns constituting erythema of small areas to have sterile vaseline applied and a snug sterile bandage to cover the entire area. The severe burns should receive adequate morphine—that is, $\frac{1}{3}$ to $\frac{1}{2}$ grain. The clothes should not be removed, nor should any attempt be made to apply anything to the burned area. Chemotherapy was considered but rejected on the grounds that in the hurry of moving these patients large amounts might be administered and the subsequent danger of toxic symptoms from rapid absorption would make its use dangerous. The burn should be covered only with a sterile dressing, a blanket should be placed about the patient, and he should be transported to the hospital.

At the hospital the minor burns are treated as at the casualty station, making sure that moderate pressure is applied over the sterile

dressings. It is considered important to treat all severe burns of less than six hours' duration as traumatic wounds, so that under proper care they should heal without infection. It can be stated without reservation that the anchor sheets of all accepted treatments today are combating shock and preventing infection.

For practical purposes the details of treatment of both of the above factors should go along simultaneously as far as possible. More morphine should be administered if the pain is not controlled. Use of enough morphine should be stressed, as it lessens shock and makes it possible to carry out a large part of the necessary treatment. Generally, it is the belief of this committee that inhalation anesthesia should be avoided. The immediate danger here exists as a sequel to the inhalation of flames and poisonous gases. With the irritation thus established in the respiratory tract, the addition of inhalation anesthesia would only be adding insult to injury. The detailed instruction sheets circularized to the Civilian Defense staffs here have emphasized heavy sedation rather than anesthesia. Pentothal sodium or evipan, intravenously, would, in some cases, be necessary to carry out the more extensive forms of débridement. In the rare cases requiring deeper anesthesia, a skilled anesthetist should administer the preferred agent.

At this time arrangements for the administration of blood plasma at the casualty station have not been carried out. We believe that with the present transportation system these cases will be brought into the hospitals without delay, but should transportation facilities break down and plasma not be given, we know that our mortality figures would suffer. Prompt administration of blood plasma to all serious burns is *imperative*. No laboratory work is necessary before it is given; therefore, if delay occurs anywhere along the route, administration of it should be started. All severe cases should have plasma immediately after admission to the hospital in any event. This early use of plasma is, of course, to combat the primary fluid loss and shock. It should not be confused with the total amount necessary for the individual case.

When a burn occurs, it is sterile, or at least approximately so, and every effort should be made to keep it that way. All steps to prevent infection will be rewarded by simplifying the subsequent care in many ways. It is much

easier to prevent infection than it is to treat it later—to this I am sure we will heartily subscribe; therefore, care in promoting asepsis is essential. The initial steps having been accomplished, the surgeon prepares as for any surgical procedure—that is, scrubbing ten minutes, wearing sterile cap, mask, gown, and rubber gloves. All operating room personnel should wear cap, mask, and gown. The patient is brought to the operating room, or if one is not available, to a room having a controlled temperature of about 80 F., free from drafts and visitors. The clothes should be removed with sterile instruments. After this is completed, the surgeon should change his gown and gloves, then wash the burned area for ten minutes with sterile soap and soft gauze. It should be carefully débrided of hanging skin and all ivory-white dead tissue. It is very important that gentleness be exercised in all the above steps. Do not use a scrubbing brush, alcohol, or other strong solutions. Following cleansing and débridement, the area is rinsed thoroughly with sterile saline solution. The prepared field should be dried and then sprayed with tannic acid and silver nitrate solution, comprising a 10 per cent aqueous solution of each. The patient is placed in his bed on a sterile sheet, an electric cradle over him, covered by a sterile sheet. The temperature to be maintained beneath this cradle or tent should approximate 90 F. The above solutions should be applied by atomizer every half hour until such time as the eschar has taken on a light brown color, and then they should be stopped. It is useless to continue spraying further, as it results in a definite waste of time and causes a much thicker eschar than is necessary. The thick eschar is one of the pitfalls of this treatment. It is impossible to locate infection beneath a heavy crust. With the light crust the patient is more comfortable and infection is easily identified as a loose, puffy, compressible area. When these areas are encountered, they should be opened, treated locally until the infection is cleared, and then sprayed again with tannic acid and silver nitrate solution. The exceptions to the above tanning routine are that no eschar should be formed on the face, hands, or genitalia; sterile vaseline dressings should be used on these parts.

Early in Davidson's original investigations he focused attention on the fact that tannic acid kept the patient comfortable. He elaborated on the precipitation of protein in the burned tissue, thus inhibiting dehydration and minimizing toxic absorption. Certainly there is no doubt that it is a powerful agent in the prevention of infection. We find, therefore, that it fulfills

the basic factors of treatment—namely, shock and infection. It is relatively easy to obtain and lends itself to the mass treatment of casualties without vast accessory supplies or equipment.

Emphasis has been placed on the use of blood plasma in combating early shock; in the treatment of delayed shock it has no equal. The outpouring of vital fluids with the severely burned case is tremendous, and with this loss, shock becomes deeper. It calls for almost a continued intake of blood plasma to hold these patients from serious damage or even a quick fatal issue. At Pearl Harbor many of the burn fatalities were attributed to the lack of this essential fluid. It is, therefore, obvious that every effort directed toward increasing an available supply of blood plasma at casualty stations, and especially the hospitals, will save lives. Estimation of burned area, as advised by Berkow, helps greatly in anticipating the patients' further care and need for fluids. In general, it may be said that if 10 per cent of the body surface is burned, 1,000 cubic centimeters of blood plasma should be given. The amounts should be increased directly in proportion to the increase in percentage of burned field. It should be given intravenously over a twenty-four hour period in small divided doses. Saline and glucose may also be given, but not to exceed the amount of plasma given in the same period. It should be kept in mind that saline and glucose can be harmful. They should be used only as an emergency substitute for plasma. Edema occurs when saline and glucose alone are used. Hemoconcentration is not relieved because the necessary colloidal elements are lacking. The patient may be permitted to drink moderate amounts of fluid, but no food should be given by mouth until the stomach is retentive and shock is controlled. The hematocrit aids in determining what fluids are needed, but as a rule no special laboratory methods are indicated. The clinical evaluation should be, and is, the best guide. When hemorrhage occurs as a result of the burn or concurrently with it, whole blood transfusions should be given. They should also be given with the gradual anemia that develops with some severe burns.

In the event of lung involvement, however minimal, oxygen inhalation therapy should be started. A Boothby mask can be used and a concentration of at least 60 per cent oxygen should be attained. It not only aids in lowering the incidence of respiratory complications, but lessens anoxemia and decreases the degree of shock.

After a period of seven to ten days while the eschar is still clean it should be surgically removed. All third degree areas should be

grafted. The second degree areas should be dressed with sterile vaseline gauze and the usual pressure dressings used for grafted areas. This dressing should not be changed for ten to fourteen days unless fever or other signs demand it.

In conclusion, it is our belief that attention to details is the important issue. Even though

they may seem elementary in many instances, rigid completion of the steps as outlined results in quick relief and an early cure. No attempt has been made here to discuss the various splendid treatments or the plans of rehabilitation, for our chief concern is with the immediate care of a few or many casualties.

SHOCK

MAURICE A. BARNARD, M.D., Rochester, New York

SHOCK, always of interest to the surgeon, obstetrician, and physician, now becomes of interest to the first-aiders and the public. A committee of medical men from the Rochester hospitals has given serious study to this problem through the stimulus and direction of the medical defense committee. Dr. Don Hutchens was chairman of this committee in its study stage. He is now Major Hutchens with General Hospital No. 19. The report of his committee is presented herewith:

In the event of possible bombing of cities, the experience of the English medical personnel suggests the value of the practical rather than the theoretical import. As is well known, such casualties have a high mortality, and the living injured are badly hurt. The recognition of shock and its treatment at the site of the disaster are stressed in order to cut down the increased incidence of mortality in delay and the added trauma of handling and lost time. This places tremendous responsibility on the judgment and decision of the casualty station surgeon. It gives him the position of battalion surgeon in the army and demands quick decision and decisive, direct action. He must train himself and his personnel to avoid confusion under trying circumstances. Careful handling of these badly injured cases is necessary, and sometimes treatment of shock, such as plasma infusion at the site before transfer, may be indicated.

Dr. Philip D. Wilson, speaking June 23, 1942, at the Conference of Health Officers and Public Health Nurses at Saratoga Springs, said: "While heat, fluids, and sedatives are important in the treatment of shock, the really life-saving measure, when required, is transfusion of plasma or whole blood." He also stated, "The 'crush syndrome' is caused by the pinning of a person's extremity under falling timbers or débris from which it cannot be extricated for several hours. The individual seems in good condition until after

he has been released, when evidence of shock generally develops."

Treatment of Patient in Shock from Severe Trauma Without Hemorrhage or with Minimal Hemorrhage

1. Make the patient comfortable by first aid treatment to injuries (splinting of fractures, etc.). This would also include placing on stretchers and moving to casualty station or hospital by trained personnel.

2. Shock position—elevate foot of bed.

3. Record blood pressure and pulse at frequent intervals, as indicated by the individual case.

4. Maintain body temperature with warm blankets and hot water bottles. Do not overheat patient.

4. Sedation: Morphine sulphate by hypodermic as indicated to control pain. Do not increase shock by prescribing larger doses than necessary. Morphine syrettes, collapsible tube hypodermic outfits of morphine tartrate in one-quarter and one-half grain strengths are in the first aid kits of the Rochester Civilian Defense Units.

6. Administer oxygen in high concentrations by mask, nasal catheter, or tent, if these measures are available.

7. Fluid therapy: (a) Take blood for hemoglobin determination and blood grouping. (b) Cannulate accessible vein.

8. Fluids: First choice—half-strength plasma; second choice—matched whole blood if available, or compatible universal donor; third choice—6 per cent acacia in normal saline; fourth choice—5 per cent glucose in normal saline or Ringer's solution.

Many of the fluid substitutes for blood plasma and whole blood were studied by the committee. A beautifully written, detailed discussion of these is reported in the August issue of the *NEW YORK STATE JOURNAL OF MEDICINE*, Vol. 42, No. 15, page 1480. Time does not permit their repetition, however, this afternoon.

Treatment of Shock in Patient Suffering from Hemorrhage

1. Place patient in shock position with feet elevated. Quiet surroundings are desirable if possible.
2. Control external hemorrhage.
3. Appraise presence of internal hemorrhage. Appoint an individual surgeon to be responsible for this during the entire emergency and to have complete responsibility for laparotomy if necessary.
4. Record blood pressure and pulse at frequent intervals as indicated by the individual case.
5. Maintain body temperature with warm blankets and hot water bottles. Do not overheat patient.
6. Sedation: Morphine sulfate by hypodermic as indicated to control pain. In cases of suspected internal hemorrhage, postpone sedatives until the diagnosis of internal hemorrhage is established. Avoid increasing shock by prescribing larger doses than necessary. This deserves comment. Anoxia or deprivation of oxygen to body tissues is one factor present in shock because of depleted circulation. Morphine reduces the ability of body tissues to avail themselves of oxygen; therefore, overdosage of morphine in shock must be avoided. Pain only should be the signal for its use.
7. Drugs: If there is no response to shock treatment as outlined, adrenal cortex extract may be given—5 cc. intravenously or subcutaneously at the start, followed by 2 cc. at intervals of from four to six hours. No doubt many of us using adrenal cortex extract have not used enough.
8. Administer oxygen in high concentrations by mask, nasal catheter, or tent, if these measures are available.
9. Fluid therapy: (a) Take blood for hemoglobin determination and blood grouping. (b) Cannulate accessible vein. Concentrated blood, as shown by high hemoglobin where the victim may have been sweating and for many hours and deprived of water intake, may indicate the need for saline rather than blood or plasma.
10. Fluids: On suspicion of shock fluids may be administered in amounts indicated by the individual case. Attempt to control hemoglobin concentration and stabilize blood pressure. First choice—matched whole blood if available; second choice—half-strength plasma (1,000 to 1,500 cc. or more may be required); third choice—6 per cent acacia in normal saline; fourth choice—5 per cent glucose in normal saline or Ringer's solution.

Dehydration at the time of injury reminds us of dehydration at the time of operation. To divert for a moment to routine surgery in

civilian life—many patients enter the hospital the afternoon before operation. This becomes a more frequent occurrence with hospital crowding. Many times there has been hurry to finish certain details of home or business matters before the patient goes to the hospital to have the repair or hernia fixed. The patient has forgotten to drink and is not a good water drinker by habit. Very little or no evening meal is eaten. He is given a barbiturate or other sleeping drug. There is no breakfast. The schedule has been overcrowded, and the operation finally starts at ten-thirty, eleven, or twelve o'clock. Many nurses have been taught that no fluids should be given before operation to avoid vomiting. How long before is variable in their training. Because of these factors, such a patient may go into shock with a simple hernia or perineal repair. The necessity of plasma can often be avoided by intravenous saline started at the beginning of the operation. The patient could and should have had water and fruit juices forced the night before and water up to two hours before operation time. A clean, well-watered stomach is less liable to vomit. A practical means of judging fluid reserve in injured or preoperative patients is the color and amount of urine. A dark urine usually indicates dehydration. A large amount of light-colored urine over a period of a few hours would indicate good fluid reserve.

Treatment of Shock in the Burned Patient

1. Place patient in a comfortable position (on a sterile sheet if available).
2. Check extent and severity of burned area and make a written record.
3. Record blood pressure and pulse at frequent intervals as indicated by the individual case.
4. Maintain body temperature with blankets over a sterile sheet if available. Do not overheat patient.
5. Sedation: Morphine sulfate in amounts as indicated by the individual case. Again, pain is the only indication for morphine. Bear in mind the danger of overdosage in very old, very young, or badly shocked casualties.
6. Shock position—feet elevated.
7. Drugs: If adrenal cortex extract is available, it may be given at the discretion of the surgeon in charge. Dosage: 5 cc. may be given intravenously or subcutaneously at the start, followed by 2 cc. at intervals of from four to six hours. Adrenal cortex is much more readily carried in the first aid kit than plasma and might often be indicated at the site of the casualty, with the blood or plasma given after the victim has been moved to the hospital.

8. Administer oxygen in high concentrations by mask, nasal catheter, or tent, if these measures are available.

9. Fluid therapy: (a) Take blood for hemoglobin determination and blood grouping and for specific gravity and hematocrit if facilities are available. (b) Cannulate accessible vein. (c) Start full-strength plasma intravenously at the rate of 200 cc. plus per hour or more rapidly if the blood pressure is falling. Continue for at least eighteen hours if hemoglobin percentage is tending to increase. During the second twenty-four hours combat hemoglobin concentration with half-strength plasma in amounts

as indicated by the individual case. In large area burns, the weeping or skin loss of plasma is often sufficient to cause a relative concentration of hemoglobin. (d) If burn exceeds 15 per cent of the body surface, begin full-strength plasma injection, whether or not patient shows signs of shock during the early treatment.

10. Do not begin local burn treatment until blood pressure is stabilized.

11. During the second twenty-four hours maintain near normal hemoglobin or hematocrit level by: (a) fluids by mouth; (b) equal parts of plasma with normal saline intravenously as indicated.

TREATMENT OF WAR FRACTURES AMONG THE CIVILIAN POPULATION

J. P. HENRY, M.D., Rochester, New York

SOMETIME ago Dr. Simpson requested Drs. Clark, Crawford, Harris, Hopkins, and me, representing the Fracture Services of the hospitals included in the Emergency Medical Service of the local Civilian Defense Organization, to act as a committee to draw up an outline for treatment of fractures. The outline will be a recommended catalog of more or less standardized procedure for use in any major disaster. After several meetings with discussion of the literature, the proceedings of recent orthopaedic meetings, and personal experiences, we evolved a brief summary of recommendations, which, I believe, has been or will be made available to all of you. This represents, we believe, the consensus of present opinion on the subject, and this presentation today will be an expansion of the outline. Some of it may seem elementary and self-evident, but experience has shown that it is well worth while for all of us to refresh our memories on some perhaps well-known facts and to coordinate and arrange our ideas so as to afford us a fairly definite and well-thought-out routine which will serve us as a very valuable foundation in carrying on this phase of medical service under the extreme stress of a major disaster. Also it must be remembered that, because of the enforced shortage of available personnel, many details of this work will fall on relatively inexperienced lay rescue squads—first aid workers and the like—or on doctors whose normal professional activities are far removed from the care and treatment of fractures.

Hence, I must ask that you bear with me if I present ideas that may seem well known and rather primary to you. I assure you again that experience has shown them to be well worth emphasizing.

"War fractures" among the civilian population are, of course, basically the same as "peace fractures" among the same group, but "war fractures" are complicated by a number of factors. They are apt to be more severe, with a much higher incidence of compounding wounds. There may be multiple fractures or fractures associated with other injuries in the same individual. Patients are apt to suffer from shock beyond the ordinary degree because of the severity of their injuries, exposure, unavoidable delays in rescue work, and psychic influences. Treatment may be modified by extraneous circumstances, such as blackouts, shortage of experienced personnel, sudden and large influx of casualties, and even by bombs affecting the hospital itself with either direct or indirect disruption of essential services, such as light, water, or communications.

We have roughly divided the treatment of these injuries into two stages:

1. Treatment in the field.
2. Treatment in the hospital.

Treatment in the Field

Field treatment of fracture cases will, of necessity, largely fall into the hands of lay personnel working under more or less medical supervision.

The first and most important dictum is that all fractures should be immobilized before the

victim is moved unless it is absolutely necessary to move him forthwith from a place of imminent danger. Obviously one does not stop to apply any elaborate splinting to a man who is in a blazing room or who is lying alongside a wall which is beginning to collapse, but in general fracture victims should be "splinted where they lie." Splints, stretchers, etc., should be brought to the victim, not the victim to the splint. If there is a suspicion of fracture, treat as one would a fracture. No harm will be done by splinting an unbroken bone in error, but much harm may result from neglecting to splint a questionable injury which later proves to have been a fracture. To be of any value a splint must effectively accomplish its purpose, viz., the immobilization of the fractured bone. To do this it is necessary, generally speaking, to immobilize the joint above and below the fracture. Traction-fixation splints which overcome the effects of muscle spasm are, at least theoretically, the most desirable form of splinting. From considerations of a practical nature, there has been a great deal of argument pro and con regarding the use of traction splints, but we have recommended the use of the Keller-Blake or modified Thomas hinged, half-ring splint for use in fractures of the upper leg or thigh. This splint can be fitted to practically any thigh and is interchangeable from right to left. For fractures of the lower leg or ankle, the well-known pillow splint makes a very satisfactory appliance. For fractures of the upper extremity, we have recommended the use of lateral splints, with immobilization of the extremity in a sling or by a secure fastening to the trunk. Fractures of the jaws may require provision for an adequate airway, after which they can be held with a four-tailed bandage or the simple Red Cross jaw bandage.

There has been a great deal of difference of opinion regarding the use of traction splints, especially in the case of compound fractures in which one of the fragments protrudes through the wound, and we have had some correspondence with the National Headquarters of the American Red Cross and with Dr. Robert Kennedy, Chairman of the Fracture Committee of the American College of Surgeons, who supervised the preparation of the portion of the Red Cross *First Aid Manual* dealing with this subject. The authoritative consensus of opinion seems to be that, from a practical standpoint, it has been considered necessary to prescribe a definite form of procedure, designed to fit most cases and not complicated by exceptions that would tend to confuse inexperienced personnel. Fractures of the lower extremity—e.g., those for which we have recommended traction splinting—come within one of the following groups:

1. Simple fractures, with no compounding wound.

2. Compound fractures in which the wound is caused by a projectile or other external object—i.e., from without inwards. In these cases, any infection has already been carried into the wound.

3. Compound fractures with the wound produced from within outwards, in which the protruding fragment has already replaced itself within the wound before the case is seen by the first-aiders. Again, any infectious material has already been carried into the wound.

4. Compound fracture, with the fragment still protruding through a relatively small wound. This type constitutes a small percentage of the cases.

In the first three classes, there can be no objection to the use of traction. The last class is the basis for the controversy, and Dr. Kennedy writes that the American College of Surgeons' Fracture Committee feels that the beneficial results of traction splinting in the first three classes outweigh the possible detrimental results of its use in the fourth. Personally, I have found that the accidental replacement of the protruding fragment within the wound, when splinting, may often be prevented by the simple expedient of placing a sterile compress under the protruding bone end.

If conventional splints are not available, very satisfactory substitutes can be improvised from materials at hand if one keeps clearly and definitely in mind just what he is attempting to accomplish by the application of the splint.

Compound fractures present additional problems. First, of course, is hemorrhage. In the great majority of cases, this can be controlled by the pressure of a dressing, and a tourniquet is unnecessary. A poorly applied tourniquet can increase hemorrhage by shutting off venous return flow and leaving the deeper arterial flow into the extremity unaffected. If a tourniquet is used, the victim should be conspicuously marked. The officially adopted method is to mark "TK" with red skin pencil or lipstick on the patient's forehead, with the time of application. No tourniquet should be left on longer than absolutely necessary and should be loosened at intervals not to exceed twenty to thirty minutes. In addition, any doctor through whose hands a TK patient passes should carefully observe the condition of the extremity distal to the tourniquet as well as check the time of application.

The second complication of compound fractures is the possibility of infection. We feel that no attempt should be made to apply antiseptics in the field, except that, if sulfanilamide

powder is available, it may be dusted into the wound, which should then be covered with a sterile dressing, and the fracture should be splinted.

Of course, appropriate measures for the prevention or relief of shock, as outlined by Dr. Barnard, should be instituted, although it should be remembered that effective splinting of a fracture is an excellent measure in preventing or relieving shock by removing a major cause.

Transportation of the Fracture Case.—All major fracture cases should be transported as stretcher cases and marked "Urgent." Particular care should be given to the transportation of patients with probable or even possible fractures of the spine. This condition is the one which is most often badly handled or actually maltreated in the ordinary accidents of civilian life, when patients with injured backs are so often folded up in a sitting position in the back seat of an automobile and rushed to the hospital. As stated previously, if in doubt as to the presence of a fracture, treat as a fracture. This is especially true in injuries of the spine. Any victim who complains of pain in neck or back should be considered a case of fracture of the spine until the contrary is proved. Note should be made of ability to move arms or legs, for knowledge of the time of onset of any paralysis is of great help in the later treatment of the case. A victim with an injured neck should be transported lying on the back with the head firmly immobilized by pillows, sandbags, or manually in order to prevent motion of the neck in any direction. Because of the usual mechanism of the production of fractures of the dorsal or lumbar spine—viz., hyperflexion—this type of case should be transported in a position of hyperextension, which is most readily maintained by carefully rolling the victim over onto his face and transporting him in this position. In this type of case one must keep firmly in mind that "haste often makes waste" and that a little delay while arranging proper means of transportation may be less harmful than hasty moving of the victim with possible aggravation of the already existing trauma and resultant cord injury with permanent disability or even mortality.

Treatment in the Hospital

The first contact with the fracture victim on his arrival at the hospital will be through the admitting or receiving officer. May we digress to emphasize that this assignment should be delegated to one of the most competent men on the staff. He must, after the briefest of examinations, be able to make an accurate diagnosis of the patient's injuries and an evaluation of his

general condition; furthermore, he must decide with a minimum of hesitation or delay what treatment is indicated, what treatment the case can tolerate, and, in case of multiple injuries, the priority of the various conditions requiring treatment. He should check at once for the presence and degree of shock, for hemorrhage, for the presence of a tourniquet, with the time of its application and the condition of the extremity distal to the tourniquet, for compounding wounds, for efficiency of splinting, and for the presence of other injuries such as abdominal or intracranial. He must do all these things speedily and without delay, yet he must also do them accurately and all-inclusively. This is definitely a most important and exacting assignment.

Treatment for shock, when indicated, must be instituted at once. One does not have to worry much about results of treatment for fracture in a patient who has already died of shock. It must be remembered that several things can be going on at the same time and that, along with specific shock treatment, more effective immobilization of a fracture may assist in some cases in the resuscitation of the victim.

Generally speaking, all fractures should be reduced and permanently immobilized as quickly as possible but, depending upon the exigencies of the situation, priority is to be given to compound fractures, the treatment of closed fractures, if they are adequately splinted, being delayed until the situation permits it.

Immediately on admission, all compound fracture cases should be given antitetanus serum or tetanus toxoid, and administration of sulfadiazine, by mouth, should be instituted. Routine administration of antigas serum has not been recommended because of (1) lack of substantial agreement on the efficiency of the commercially available serums, (2) their scarcity and expense, and (3) the results of the use of the sulfonamides.

Unless hemorrhage or the time element interferes, *x-ray examination* should be made before reduction is attempted, as much waste of time may thus be obviated.

Preoperative preparation of the operative field should begin with a thorough cleansing with soap and water of the adjacent areas, shaving as indicated, followed by the use of tincture of iodine (2 to 4 per cent) on the surrounding skin, not in the wound.

Anesthetics.—Spinal anesthesia should not be used in shocked patients. Gas-oxygen anesthetic should be administered by an experienced anesthetist. If it is not available, ether should be used. In selected cases, local or regional anesthesia may be employed.

Type of Operation

The type of operation will have to depend upon the type of case and the judgment of the surgeon. It cannot be dictated that one method shall be followed in all instances. The patient cannot be made to fit a favorite method. We will attempt to present what seem to be generally accepted as the most desirable and effective procedures, even though we realize that these may be modified by many factors; e.g., the condition of the patient, the time elapsed, the experience of the operator, and the facilities of the hospital.

All authorities are generally in agreement that the first essential is thorough and effective débridement of all traumatized tissues. This requires that the wound be enlarged, if necessary, to permit access to all parts of the wound in order to allow thorough mechanical removal of damaged and contaminated tissue. If irrigation is used, the flow should be directed from within outward.

This cleansing of the wound should be followed by as accurate a reduction of the fracture as possible. Reduction should be maintained by rigid internal fixation with plates, screws, or wires if feasible. Traction by multiple pins (one or more pins distal and one or more proximal to the fracture), by single pin, or by Kirschner wire may be used.

One of the sulfonamide drugs should then be introduced into the wound in powder or crystalline form. Sulfanilamide is recommended by most authorities because it has seemed the most successful, possibly because, experimentally, it shows the highest concentration in the serum locally and the deepest penetration into tissue. The wound should then be left open and packed with plain or vaseline gauze and covered with a gauze dressing. This should be followed by the application of a well-fitting plaster-of-paris cast. This completely immobilizes all the tissues of the extremity and, by producing an approach to a condition of physiologic rest, enhances the ability of the tissues to resist infection and promote healing. No window should be cut in the cast, as this immediately destroys its effectiveness by permitting edema, stasis, and contamination with cross infection. Unless complications arise, the cast should not be changed for several weeks or longer if possible, unless it is softened by excess drainage or a change is made unavoidable by a foul odor. If there is uncertainty regarding the circulation in the part or the effectiveness of débridement, application of the cast may be postponed for several days and some form of open traction employed, perhaps supplemented by a plaster gutter splint to permit observation of the part.

This procedure was well summarized by Dr Philip D. Wilson in a paper reported in *Health News* of July 27, 1942:

"Operative treatment of the wounds aims at mechanical sterilization by excision of all dead and contaminated tissue. This is followed by the introduction of one of the sulfonamide drugs in powder or crystalline form in the wound, which is then packed open with vaseline gauze. Primary closure of wounds is dangerous and bad practice. When a fracture is present, it is reduced, and the injured limb is then enclosed in plaster. The closed plaster treatment of compound fractures according to the Orr-Trueta technic has proved highly successful. It saves the time and labor of doctors and nurses in daily changing of dressings, conserves the materials, and saves the patient pain from daily manipulation of his wound. It promotes healing of the wound by providing complete rest of the part and prevents cross contamination and mixed infection of wounds which always occur in spite of the best surgical technic when dressings are changed frequently."

Necessarily, in the short time at our disposal, we have only attempted to sketch briefly the highlights of this most important subject, and we hope that we may at least have aroused your interest sufficiently to inspire you to do some serious thinking and planning as a foundation for the most efficient care of this type of injury, if a major disaster should come upon us.

Outline of Standardized Treatment of Fractures by E. M. S.—Civilian Defense

In the Field

1. All fractures to be splinted adequately *before* transportation. "Splint them where they lie."
2. Compound fractures to have sulfanilamide (if available) dusted into wound and wound dressed with dry sterile dressing. Fracture splinted.
3. Tourniquet to be applied only if absolutely necessary. Medical officer at any station through which tourniquet case passes should check not only time of application but also condition of extremity distal to tourniquet.
4. All cases with compound fractures and/or tourniquet should be conspicuously marked, preferably with some conspicuously colored tag, or by dye on forehead.

In the Hospital

1. Admitting officer should check tourniquets, presence of compounding wound, and adequacy of splinting.
2. In compound fractures, oral administration of sulfadiazine should be begun at once and A.T.S. or tetanus toxoid administered.
3. Shock treatment should be initiated when indicated.
4. As a general rule, all fractures should be reduced and permanently immobilized as quickly as possible but, depending on the exigencies of the

situation, priority is to be given to compound fractures, the treatment of closed, but adequately splinted, fractures being delayed until the situation permits.

4. Ample supply of sulfadiazine for oral administration and sulfanilamide for use in the wound should be available.

Also adequate supplies of pins, S.M.O. plates and screws, Kirchner wires and bows, silver wire. Thomas leg splints and plaster of paris should be available.

5. Standard preoperative preparation:

Thorough cleansing of *area about wound* with soap and water. Shaving as indicated.

Tincture of iodine (2-4 per cent) on skin—not in wound.

6. Operative procedure:

This will depend on the type of case and the judgment of the surgeon.

As a general rule, the use of sulfanilamide in the wound after débridement and the leaving open of grossly compounded, contaminated wounds are recommended.

List of Suggested Readings

1. Caldwell: Rocky Mountain M. J. 39: 182 (March) 1942.
2. Carerj: Gior. di Med. Mil. 88: 656 (Sept.) 1940.
3. Davis: Virginia M. Monthly 69: 237 (May) 1942.
4. Eloesser: J.A.M.A. 115: 1848 (Nov. 30) 1940.
5. Fairbank-Ivy: Mil. Surgeon 86: 124 (Feb.) 1940.
6. Ghormly: Proc. Staff Meet., Mayo Clin. 15: 673 (April) 1940.
7. Hansen: Mil. Surgeon 87: 53 (July) 1940.
8. Kennedy: Ann. Surg. 113: 942 (June) 1941.
9. Kennedy: New York State J. Med. 42: 357 (Feb.) 1942.
10. Marble: New England J. Med. 223: 672 (1942).
11. Novotelnov: Vrach. delo 22: 563; 22: 641 (1940).
12. Orr: South. M. J. 34: 315 (March) 1941.
13. Orr: J. Indiana M. A. 33: 442 (Sept.) 1940.
14. Picot: Mem. Acad. de Chir. 66: 155 (Jan. 31-Feb. 7) 1940.
15. Schein: Am. J. Surg. 50: 536 (1940).
16. Sehum: Wise Med. J. 40: 1061 (March) 1941.
17. Scott: Brit. M. J. 1: 209 (Feb. 14) 1942.
18. Thomson: Nebraska M. J. 26: 285 (Aug.) 1941.
19. Trueta: Brit. M. J. 2: 1073 (Dec. 2) 1939.
20. Trueta: Brit. M. J. 1: 616 (May 16) 1942.
21. Upjohn: Australian M. J. 2: 880 (Dec. 9) 1939.
22. Wilson: Health News 19: 30 (July 27) 1942.
23. Wilson: Ann. Surg. 113: 915 (June) 1941.
24. Griswold: South. Surgeon 10: 630 (Sept.) 1941.
25. Key: J.A.M.A. 117: 409 (Aug. 9) 1941.

Round Table Discussion

After the four papers were presented, Dr. Leo F. Simpson asked questions of the authors and others.—Editor

Question: Have pitressin and epinephrine any value in shock?

DR. EARLE MAHONEY: No. Vasoconstriction may elevate blood pressure, but it does not prevent protein or fluid loss from circulation. Any possible benefit would be very temporary, and ultimate harm would result. Vasoconstriction would be added to coronary circulation in a heart already suffering from anoxemia. Depleted circulation to the heart would result. Adrenal cortex hormone (eschatin) in 5 cc. and repeated in 2 cc. doses would be better.

Question: What is the present status of the value of adrenal cortical extract in the treatment of shock?

DR. MAHONEY: The theoretic value of adrenal cortical extract is that it reduces the capillary permeability. Over a period of time in shock resulting from burns this reduction of capillary permeability would minimize the amount of fluid lost. We have seen burns with and without adrenal cortical extract treatment and have seen no difference.

DR. BARNARD: Right or wrong: Patients in shock should not be removed hastily to the hospital lest the excitement and jolting of transport result in increasing shock of serious proportions. This is now the English plan.

The English experience was to move the patients to the hospital as rapidly as possible. Through necessity they found that it was better not to move them too quickly. It is better to treat them at the site of injury. One must, however, bear in mind the type of crushing syndrome. If a victim has been pinned down by heavy timber, etc., for several hours, he should be quickly treated even if the hospital is not nearby because he is likely to go into shock very rapidly.

Question: How many fatal reactions have there been to plasma?

DR. HOWLAND: In the United States there has been one fatality to plasma. This was caused by dried plasma which was not prepared according to

the standard and accepted procedure. When it was rechecked, it was found to be definitely incompatible plasma.

Question: Do you think A and B factors will be added to blood plasma to get rid of any anti-A and -B antigens that might be present in the plasma?

DR. HOWLAND: Reactions to anti-A and -B substances have been less than 3 per cent, including the total number of reactions. This also includes plasma given by untrained individuals, and we consider it a relatively standard figure for the whole medical profession. The less we do to plasma in preparation, the less chance there is of contaminating it. That is about the present opinion of this committee and also of the Civilian Defense Committee. Until we have more reason for adding extra substances, we shall not add anti-A and -B substances.

Question: If staphylococcus and saprophytes are the most common contaminants, why use merthiolate, which does not prevent this contamination?

DR. HOWLAND: When we started, we did not use any preservative at all. The feeling of the committee was that if we did not use a preservative, we were open to criticism. Merthiolate is one of the few products that can be injected intravenously without reaction and that does not denature protein.

Question: How many cases of mercury poisoning will occur, especially in people who are sensitive to mercury or who receive a very large amount of plasma?

DR. HOWLAND: There are two cases on record in which individuals with burns developed mercury poisoning after receiving large amounts of plasma. Hence it is being stressed that if an individual is burned, plasma should not be prepared in this fashion. Special plasma can be made up without a preservative. If anything in excess of 1,500 cc. is given, we suggest that the preservative be omitted.

As for individuals who are sensitive to mercury—one has to take that chance.

Question: Is there any difference in the properties of wet plasma, frozen plasma, and dried plasma?

DR. FRED A. BRYAN: There is very little difference in them. In shock, plasma is used mainly for the effect of osmotic pressure. It is used primarily for the albumin in the plasma so that dried, frozen, or wet would be satisfactory. However, there is slow deterioration of wet plasma whether it is kept on ice or at room temperature. It can be kept at room temperature for a considerable period. You will find that the fibrin precipitates in wet plasma, and substances such as prothrombin and complement are lost after twenty-four to forty-eight hours.

Frozen and dried plasma are roughly the same. The only difference is in their transportation. The frozen must be kept at a temperature of -20°C . and must be melted in a constant-temperature bath at the source of storage and then transported. For large quantities, it is quite a job to maintain a constant-temperature bath at 37°C .

Dried plasma is the best type for transportation. Frozen plasma is in the city, and we must keep a supply in Rochester available on call.

Question: How do burned areas become infected if it is true that they are sterile or nearly so at inception?

DR. JOHN DETRO: It is essentially true that burned areas are sterile at the time of their inception, but through contact with unclean objects, which might be clothing, unsterile instruments, and dressings, they may become infected. It is very important that sterile procedure be used from the start of treatment.

Question: What type of graft is advisable after removal of the eschar?

DR. DETRO: Pinch grafting is generally considered to be a surgical error except in very large areas. Then pinch grafts can be used without moving the patient from bed. The best graft, however, is the split-thickness graft.

Question: In treating burns, what are the chief complications to be watched for and avoided if possible?

DR. HOUCK: Shock and infection are the chief complications. In shock, use plasma.

For infection, begin by preparing the patient properly. Use Ivory soap and water, gentleness and care in débriding all ivory-white dead tissue. If there is subsequent infection underneath the crust, open the crust where you find loose, puffy area and apply fresh Dakin's solution. When the infection clears, use tannic acid and silver nitrate.

Question: What is the best method of splinting injuries near the joint, in which a differential diagnosis between fracture and dislocation cannot be made in the field?

DR. HENRY CRAWFORD: If it is an ankle joint, I should say a pillow splint, in any event. If it is a knee or an elbow, the affected joint could be straightened by very gentle traction. Routine fixed traction splinting would be very satisfactory and would do no harm if properly applied. If the knee or elbow joint cannot be straightened out with gentle traction, well-padded coaptation splints on the outside of a pillow snugly wrapped around a joint would probably be the best method of immobilization. If it is the hip joint, fastening the two legs together with a pillow between the knees would probably be the best method of splinting. In case of an injury about the shoulder joint in which the elbow cannot be placed to the side of the body, the patient should be transported on a stretcher with the arm supported by pillows between the elbow and the body, in the most comfortable position. Some patients with dislocated shoulders, who show no evidence of any shock, would rather support the injured arm with the other hand than allow any type of binding splint to be applied.

Question: What is the recommended dosage of the sulfonamide drugs orally and in the wound?

DR. HENRY: Orally—sulfadiazine, 1 grain per pound of body weight up to 90; wound—2 to 10 Gm. sulfanilamide powder.

Question: How long after injury is débridement still indicated?

DR. HENRY: Up to six hours—optimum; good prognosis; six to twelve hours—débridement still should be done but prognosis deteriorates with time; after twelve hours—débridement should not be done; wound simply enlarged for drainage.

NATIONAL SOCIETY FOR THE PREVENTION OF BLINDNESS OFFERS PRIZE

The National Society for the Prevention of Blindness announces that a prize of \$250 will be awarded for the most valuable original paper during 1943 adding to the existing knowledge about the diagnosis of early glaucoma. The award will be made by the Society, with the guidance of an ophthalmological committee composed of Dr. Arnold Knapp, Dr. Manuel Uribe Troncoso, and Dr. Mark J. Schoenberg.

Papers may be presented by any ophthalmologist, student in ophthalmology, or research worker of the western hemisphere and may be written in English, French, German, Italian, Spanish, or Portuguese, but those written in the last four languages should be accompanied by a translation in English. Papers should be in the office of the National Society for the Prevention of Blindness, 1790 Broadway, New York City, by September 15, 1943.

"A budget," said Dr. W. E. Ryan, of Midland (Texas), "is a method of worrying before you spend

the money, instead of afterward."—*Texas State Journal of Medicine*

FACTORS IN OBSTETRIC CARE

Report of a Rural Study

HENRY R. O'BRIEN, M.D., Hartford, Connecticut

A PROGRAM in 1937 for mothers, infants, and preschool children was set up in Cattaraugus County, with the aid of the Children's Bureau, the State Department of Health, and the Milbank Memorial Fund. This program, which followed a survey by Dr. Doris Murray of the Children's Bureau, was approved by the County Medical Society and adopted by the County Board of Health. It was supported by an increased appropriation by the County Board of Supervisors.

A part of the program was a study of the factors in maternal care which might have a bearing on maternal and infant mortality. A questionnaire was prepared for physicians and I should like to acknowledge substantial assistance from Dr. Joseph P. Garen in this. Through the cooperation of the State Department of Health, the questionnaire, printed in blue, was interleaved with standard birth certificates in booklets prepared especially for use in Cattaraugus County (see Chart 1). The doctor was asked to fill out the slip when he made out the birth certificate, sending the latter to the local registrar and the former to the Department of Health.

These booklets were distributed through the local registrars to all physicians handling deliveries in the county. The blue slip bears an explanation itself, and this was supplemented by other publicity through the medical society, staff meetings, and ordinary contacts with physicians. No attempt was made to call on each physician separately.

The slips were prepared and circulated by July 1, 1937, in time to include the latter half of that year. They were continued during 1938 and 1939. At the close of a quarter a check was sent to each physician, reimbursing him fifty cents for each slip received from him. This helped to keep up his interest. We paid physicians in the county for reports on deliveries in the county, whether the mother resided in the

county or not, but out-of-county doctors were paid for reports only on county mothers.

Meanwhile, a summary sheet and a code had been prepared, with the aid of Miss Dorothy Wiehl of the Milbank staff and of Dr. Jacob Yerushalmy of the State Department of Health, now of the Children's Bureau. The blue slips were coded on the summary sheets in our office in Olean and later transferred to punch cards in New York.

As the study developed, it occurred to us that it might well be extended to cover the prenatal, delivery, and postpartum services of the public health nurses. An experienced clerk was sent to the district offices to take this information from the nursing records. The Olean Red Cross Society and the Gowanda Red Cross permitted the extension of the survey to their records. Since the nursing study included care for a year after delivery, it closed in the summer of 1940 for the babies delivered up to July 1, 1939.

The summary sheets also included material from the birth certificates and from infant and maternal death certificates. A special 81-column Hollerith punch card was printed for the study (see Chart 2). These have been sorted, largely in New York, but a few in Hartford. The figures obtained are discussed in the following paragraphs.

In the two years and a half of the Blue Slip Study, 3,562 births were reported as occurring during that period. Of this number, blue slips were received from physicians on 2,243 resident babies and 643 nonresident, or 81 per cent of the births. The percentage was slightly higher among nonresidents, probably because the more interested physicians had the wider practice.

Of the 2,896 resident births, a physician signed the birth certificate in all but 9 (99.7 per cent). The midwife plays a very minor part in Cat-

TABLE 1.—NUMBER OF TIMES PATIENT SAW DOCTOR BEFORE DELIVERY (LIVE BIRTHS)

	Times		Infant Deaths	
	Number	Percentage	Number	Mortality
None	75	3.4	5	66.7
Once	178	8.1	10	56.2
Twice	164	7.4	9	54.9
Three	205	9.3	11	53.7
Four	235	10.7	14	59.6
Five	241	10.9	16	66.4
Six	253	11.5	9	35.6
Seven	256	11.6	8	31.3
Eight	252	11.4	5	19.8
Nine or more	344	15.6	11	32.0
	2,203		98	44.5

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 28, 1942.

Formerly Commissioner of Health, Cattaraugus County, New York; now Chief, Division of Local Health Administration, Connecticut State Department of Health.

This study was made possible by grants from the Milbank Memorial Fund and by the cordial cooperation of the Cattaraugus County Medical Society. Dr. H. C. Allen served as chairman of the Maternal Welfare Committee during most of this time. Among others, appreciation is expressed of the thoughtful industry of Miss Frances McNamara and Miss Kathleen Cramer.

Mail direct to the

Cattaraugus County Department of Health, Olean, N. Y.

Your account will be credited with \$50 for this form.

Name of child

Date of birth

Use check ☒ where possible; if an item can not be answered, use "?".

Visits										Physical examination during pregnancy			
	Month of pregnancy									Yes	No	Specify	
									by weeks				
	1	2	3	4	5	6	7	8	1				2	3	4
Saw patient													
Weighed patient													
Urine tested													
Made abdominal examination													
Took blood pressure													
Took Wassermann													
Treated for lues													
Measured pelvis													
Month of delivery													

Delivery Nursing help: hospital nurse ☐ community nurse ☐ relative ☐
 Labor spontaneous or induced public health nurse ☐ private registered nurse ☐ friend ☐
 Duration of labor _____ hours Red Cross nurse ☐ practical nurse ☐ none ☐

Complications

Operations: forceps (outlet low mid high) Version: Cesarean (kind)

craniotomy episiotomy other

Condition of baby: good poor moribund stillbirth injured abnormal weight

Economic status of family: good fair marginal welfare

Examination planned for 6-8 weeks postpartum? Yes No

Date _____ 193____ Signed _____ M.D.

CHART 1.

taraugus County. No certificates were signed by chiropractors or osteopaths.¹

Prenatal Care

Blue slips were received for 2,243 resident births, but not for 653 others that occurred in this period. Studying these, we get considerable information as to quantity of service, but of quality, that elusive item, we can judge only by inference.

Most of the women who saw the doctor one to three times probably did so toward the end of normal pregnancy, past the period of prematurity with its dangers to the infant. The largest number of times reported was seventeen for one patient, but 33 were seen twelve times. Olean had a slightly higher proportion in the last two groups.

Yet 205 patients, not yet delivered, did not see the physician at all in the ninth month, although most had had some prenatal care. Of those seen in the ninth month, 838 were seen but once, 671 twice, 130 three times, 164 four times. Two were seen nine times in the last month.

How early in pregnancy did these patients come?

A total of 40.5 per cent started care in the first trimester, 32.2 per cent in the second, and 22.3 per cent in the third. In Wisconsin² care was earlier, but a larger proportion had no prenatal care. A larger proportion of Olean patients saw the physician in the first or second month of pregnancy than was the case elsewhere in the county.

Some study was made of the 78 patients (live and stillbirths) who had no prenatal care at all. They were fairly evenly divided between urban and rural. Thirteen (8 urban, 5 rural) were primiparae. Economically, they rated 8 "good," 26 "fair," 23 "marginal," and 17 "welfare."

TABLE 2.—MONTH OF PREGNANCY IN WHICH PATIENT FIRST VISITED PHYSICIAN (LIVE BIRTHS)

Month	Number Visiting	Percentage	Infant Deaths Number	Mortality
1	114	5.4	10	87.7
2	296	13.9	9	30.4
3	453	21.3	11	24.3
4	318	15.0	14	44.0
5	235	11.1	16	68.1
6	240	11.3	9	37.5
7	211	9.9	8	37.9
8	148	7.0	11	74.3
9	111	5.2	5	45.0
	2,126	100.0	93	43.7

In the list of the usual complications of pregnancy the most prominent were toxemia (36), a milder kidney involvement (64), eclampsia (6), and high blood pressure (29). Where reports were made, 1,487 (84.8 per cent) had no complications.

Place of Delivery

Private homes were the place of birth in 1,151 instances (39.7 per cent), the five hospitals in 1,670 (57.7 per cent), and three small maternity homes in 75 (2.6 per cent). Institutions thus delivered a total of 1,745, or 60.3 per cent. The proportion rose each year—53.8 per cent in 1937, 60.1 per cent in 1938, and 63.8 per cent in 1939. For total births in the county the figures for these years would be higher, since non-residents come almost entirely to be delivered in institutions. We are interested here also in getting the resident custom. In Mississippi,⁴ in 1938, 26 per cent of the deliveries were in hospitals, but in Michigan 45 per cent.²

How far do mothers go to be delivered? To get a clearer answer let us separate the rural remainder of the county from the three urban areas of Olean, Salamanca, and Gowanda.

Only 10.9 per cent of the rural births were more than ten miles from the mother's home.

Operations

Operative intervention was reported on 1,003 of 2,719 resident and nonresident patients (live and stillbirths included), or 36.9 per cent. An additional 17 had lacerations not due to operations, while 1,699 (62.5 per cent) had no operative experience. It is noted that operative habits depended somewhat on the scene of the delivery. Forceps were less often applied in the home, although they numbered 23 mid and 6 high, mainly in the rural areas. Three versions were performed in the home. The bulk of the operations were performed in the hospitals. There was little surgery in maternity homes, save one conducted by a registered nurse. The percentage of patients subjected to cesarean section varied from 0.6 (Hospital B) through 2.5 (C) and 4.2 (A)

FREQUENCY OF PRENATAL MEDICAL SERVICES

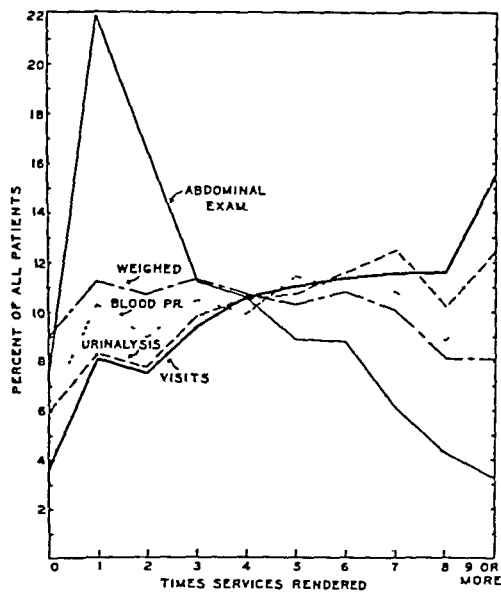


CHART 3.

to 6.2 (D) and 7.8 (E). In the two latter, section was sometimes performed to sterilize welfare multiparas. In Hospital D forceps were applied to 62.3 per cent of the babies, for 55.8 per cent of whom episiotomy was also done. Version, however, was more common in each of the other hospitals.

The use of forceps in 30.0 per cent of all deliveries may be compared with 14.5 per cent in the Michigan study² and 14.1 per cent in Wisconsin.⁴ High infant mortality was associated with high forceps, version and cesarean section. The infant mortality among babies born without operation in Hospital D was 89.9 and in Hospital A it was 75.7. Prematures bulk large in this group.

During the study, 14 maternal deaths occurred in 2,896 resident births, a mortality of 4.8. Five followed the 80 cesarean operations, an operative mortality of 6.25. Three were in Hospitals D

TABLE 3—MILES FROM RESIDENCE TO PLACE OF BIRTH, RESIDENT BIRTHS ONLY

Distance	Urban		Infant Loss*	Rural		Infant Loss*
	Number	Percentage		Number	Percentage	
Less than 2 miles	1,138	98.7	63.3	606	55.96	80.1
2 to 4 miles	10	0.9		112	10.34	53.6
4 to 6 miles	1			104	9.60	57.7
6 to 8 miles				113	10.43	53.1
8 to 10 miles				30	2.77	100.0
10 to 14 miles				53	4.89	37.7
14 to 18 miles	4			43	3.97	69.8
18 to 22 miles				15	1.39	
22 or more miles				7	0.65	
Total	1,153			1,083		

* Stillbirths plus infant deaths per thousand births.

TABLE 4—OBSTETRIC OPERATIONS ON ALL BIRTHS FOR WHICH BLUE SLIPS WERE RECEIVED

Name	Operation		Mortality	
	Number	Percentage	Number	Infant Deaths
No entry	1,699	62.5	88	52.6
Forceps—outlet	219	8.1	3	13.7
low	476	17.5	9	19.0
mid	100	3.7	4	40.4
high	19	0.7	2	105.3
not specified	1	0.04		
Total forceps	815	30.0		18
Version—or version and extraction	38	1.4	4	133.3
Cesarean	80	2.94	5	62.5
Craniotomy				
Episiotomy—total	(276)	(10.15)		
simple	37	1.4	1	27.0
Other	33	1.2	1	
Total operative intervention	1,003	36.9		
Lacerations—not combined with forceps	17	0.63	1	
Total	2,719		118	44.0

TABLE 5—PERCENTAGE OF MOTHERS DELIVERED IN HOSPITALS

	Good	Economic Status, Percentage			Total
		Fair	Marginal	Welfare	
All residents	83	61	37	45	61
Rural residents	68	47	24	32	44
Urban residents	94	75	61	65	78

and E. Four deaths were from hemorrhage (one a ruptured ectopic), three from toxemia, and one each from shock and sepsis. Only two of the group were connected with abortion

Influence of Economic Status

The doctor was asked to indicate the approximate economic status of the patient, using four groups: good, fair, marginal, or welfare. In the office we also listed those applying or accepted for medical care by a welfare department. Usually the doctor and the welfare worker considered the family in the same group. Some "marginal" cases applied for welfare aid, and some were accepted, others not. At least two "fair" families made welfare application,

and one apparently established its case and was accepted.

The proportion of mothers delivered in hospitals fell markedly with the means of the family. It rose slightly in the welfare group because at times doctor, nurse, and welfare worker agreed that home conditions were too poor to permit a safe delivery. Among rural residents the rates were lower, being higher in the urban districts.

It was the rural borderline mother who received pitifully little hospital service. Instead she turned more often to the public health nurse, to a relative, or to a friend; or, more often than any other group, she had no one at all to help the doctor.

In each separate economic group the largest number of prenatal patients saw the doctor for the first time in the third month. Studying trimester groups, however, we note that the proportion of those starting prenatal care in the first three months of pregnancy is much higher in the "good" economic group and falls off rapidly in the others. In the second trimester the figures are almost uniform, but in the third

TABLE 6—INFLUENCE OF RESIDENCE AND ECONOMIC STATUS ON EARLY PRENATAL CARE

Resident receiving	Good	Fair	Percentage Marginal	Welfare	Total
No prenatal care					
All residents	1.1	3.2	5.9	6.3	3.4
Rural	0.9	2.4	6.1	7.1	3.7
Urban	1.25	4.0	5.5	5.0	3.1
Care starting 1st trimester					
All residents	57.1	34.1	29.7	21.2	39.1
Rural	54.4	32.1	26.4	19.6	33.6
Urban	58.3	36.1	35.2	23.8	44.3
2nd trimester					
All residents	30.2	40.8	35.3	37.5	36.0
Rural	31.1	42.0	35.0	36.9	37.2
Urban	29.6	39.6	35.9	38.6	34.8
3rd trimester					
All residents	11.6	22.0	29.2	34.9	21.5
Rural	13.6	23.5	32.5	36.3	25.5
Urban	10.6	20.4	23.4	32.7	17.7
Persons					
Total					
All residents	708	819	391	269	2,187
Rural	228	417	246	168	1,059
Urban	480	402	145	101	1,128

the proportion rises as the family's financial ability falls. Rural residents are somewhat slower in starting care than urban, especially in the "marginal" group. One in 90 of the upper group had no prenatal care at all, one in 16 had none in the "welfare" group.

Both residence and economic status of the family have a striking influence on the frequency of operative intervention (see Chart 4). Rural residents are less than two-thirds as liable to be operated on as are their city sisters. The frequency of operation rises with financial ability, though "welfare" mothers had more operations than "marginal" mothers. A city woman of means had an operation three and one-half times as frequently as a rural woman just off welfare.

Even when only hospitalized cases are considered, these differences persist, though less strikingly. The four economic groups received intervention to the following degree: 59.7 per cent, 52.6 per cent, 41.6 per cent, and 46.8 per cent, or an average of 53.8 per cent. The rural curve is flatter, with 53.2 per cent, 45.5 per cent, 42.0 per cent, and 43.2 per cent, or an average of 47.1 per cent. The urban figures are higher and sharper: 62.0 per cent, 57.3 per cent, 41.2 per cent, and 58.8 per cent, averaging 57.6 per cent.

Length of Gestation

Of the 2,870 resident living births, 60 occurred before the eighth month of pregnancy, 62 more during the eighth, and 3 were described as "premature"; 125 (4.0 per cent) came before the ninth month and may be classified as premature. Fifteen were reported as "overdue." The rest were born sometime during the ninth month. Of the premature births, 52 (41.6 per cent) died. None survived before the sixth month, but 12 per cent of the 17 born in the sixth month lived, as did 54 per cent of the 41 born in the seventh month and 77 per cent of the 62 born in the eighth. Premature infants survived better than average in Olean and poorer in Salamanca.

We have definite weights for 2,122 babies born alive; 116 (5.5 per cent) weighed less than 5½ pounds. Of these, 37 (31.9 per cent) died. A Salamanca infant weighing 2 pounds 14 ounces at

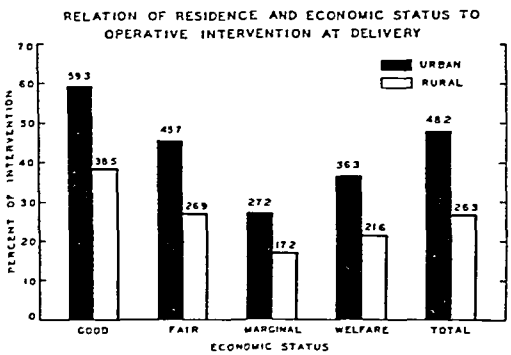


CHART 4.

birth managed to survive although 10 others weighing less than 3 pounds died.

Rural weights were slightly higher than urban; and 36.9 per cent of the urban and 22.8 per cent of the rural died.

Postpartum Examinations

When he filled out the blue slip the physician stated his intention in 98.9 per cent of the cases of making a postpartum examination. The nursing records, studied for the following year, have some bearing on this. For 396 cases there was no postpartum examination in 160. Of this number the reason is not given in 89 cases; in 10 the doctor said it was not necessary; 37 mothers refused, while 24 returned to the doctor, but he made no pelvic examination. In 249 cases the patient saw the physician and some examination was made, but in only 10 instances was this stated definitely to have included a pelvic examination. In many cases, of course, the service was complete, but too often a gap existed. Whether the responsibility was with the patient or with the doctor, the patient did not have the check-up that we all believe is called for after maternity.

To what extent do families tend to switch doctors? The question is answered in part by a study of birth and death certificates of the 123 resident infants who died. In 21 instances, or 17 per cent, a different physician signed the death certificate. In 12 cases the baby was born

TABLE 7.—OPERATIVE INTERVENTION AT DELIVERY AS INFLUENCED BY RESIDENCE AND ECONOMIC STATUS

	Good	Fair	Marginal	Welfare	Total
Residents—total	703	816	391	273	2,183
Rural	226	413	244	171	1,054
Urban	477	403	147	102	1,129
Percentage of operative intervention					
All residents	52.6	36.2	21.0	27.1	37.6
Rural	38.5	26.9	17.2	21.6	26.3
Urban	59.3	45.7	27.2	36.3	48.2

TABLE 8—INTERVAL BETWEEN BIRTH AND RECEIPT OF BLUE SLIP

Interval	Number	Percentage	Cumulative Percentage
Less than 1 week	930	41.5	
1 week—less than 1 month	638	28.5	70.0
1 month—less than 3 months	399	17.8	87.8
3 months—less than 6 months	174	7.8	95.5
6 months or more	100	4.5	100.0
Not dated	2		
	2,243		

TABLE 9—NURSING ASSISTANCE TO PHYSICIAN AT DELIVERY
(Resident Births)

	Births	Percentage
Registered nurse		
Hospital	1,373	61.9
Health department	275	12.4
Red Cross	87	3.9
Private	59	2.7
Registered nurse total	1,794	80.9
Practical nurse	122	5.5
Lay aid		
Relative	179	8.1
Friend	98	4.4
None	24	1.1
Total	2,217	100.0

at home and was cared for there throughout. In 6 cases the baby was born at home and died in a hospital. Eleven babies were born in a hospital, went home, and returned as their condition grew worse. In 3 cases another physician was in charge.

The Questionnaire as a Method of Survey

In such a survey as this the physician is usually visited in person by an investigator, who may be a medical member of the staff, a nurse, or a clerical worker. Each plan has its advocates. But salaries are expensive. A questionnaire obviously costs less even when a fee is paid. What are the relative advantages otherwise?

An investigator might possibly gather material on a higher percentage of births. Our questionnaire, which secured answers concerning 78.1 per cent of the resident births, was more than normally successful for a questionnaire. This suggests a cooperative group of physicians. Yet an investigator who interviewed 95 physicians on 3,562 births in two years and a half would work steadily. We might expect an investigator to have practically all his returns complete, but this questionnaire has been excellent in this respect.

Would he be more accurate? Accuracy would seem largely to depend on the carefulness, intellectual honesty, and interest of the practicing physician and upon the interval before the report is made. To study the second factor, first note Table 8.

An investigator might have difficulty in seeing a large group of doctors earlier than three months in more than 88 per cent of the births. The personal factors probably balance. The doctor might be interested in the investigator's visits, repeated, they might irritate him.

This is admittedly a priori reasoning. One bit of objective evidence deals with Wassermann reports. The doctor's statement that the result of the Wassermann was negative was verified by the laboratory reports in 1,027 cases, not in 15 others; that it was positive in 40 cases, not in 3 others. That was an agreement of 98.3 per cent. However, in 400 other cases the Wassermann was reported as taken but there was no record of the results.

New York State and New York City and Wisconsin are now collecting part of this information on the birth certificate itself.

One usual accompaniment of such a study was lacking. The infant mortality did not show any marked drop, as so frequently happens. Perhaps the absence was due to the fact that the county has seen other health studies and so was less susceptible to one alone. Infant mortality continues to show a steady decrease, however, over a period of years.

Public Health Nursing

This study brought out much material on public health nursing in maternal and infant care. For this section items are selected which are of special interest to us as physicians or health officers.

The modern physician wants his obstetric patients in the hospital, or at least he wants to have a nurse to help him.

This county has a home delivery nursing service, the first rural area in the United States to have one, we believe. The public health nurses of the Department of Health or of the Red Cross assisted in the delivery of 362 (42.9 per cent) of the 844 residents cared for outside of hospitals. That is a healthy proportion for agencies doing generalized nursing. It is worth noting, however, that a number of women had no one at all to help the doctor at delivery.

The modern physician appreciates the fact that a public health nurse can be of great aid in the education of the patient. How, then, did the public health nurse get in touch with the maternity patient who needed her service? A series of 1,565 cases yielded some information from the Department of Health. The physician himself referred her in 16.3 per cent of the cases. In 4.9 per cent the nurse learned of the pregnancy on a visit for another purpose. In 10.0 per cent the patient herself sent for the nurse, while in 1.5 per cent the nurse was told by the welfare

authorities, and in 4.5 per cent by some other agency or person. In an additional 4.5 per cent the nurse made the contact through some other Health Department service. The largest single source of contact was unfortunately the birth certificate (58.4 per cent). This permits the nurse to be of partial assistance only, but the birth certificate is used by many departments in just this way—to bring the nurse in contact with the new mother.

If the public health nurse can be of service, how soon does she get in contact with the people whom she can help? A sample of 626 cases shows that in 6.5 per cent she called and saw the expectant mother in the first trimester, in 27.8 per cent in the second trimester, and in the remaining 65.7 per cent in the third. This may be compared with 26 per cent, 57 per cent, and 17 per cent in Pike County, Mississippi,⁴ and with 40.5 per cent, 32.2 per cent, and 22.3 per cent in the patients' contacts with the physician.

However, in 22 per cent of a group of 489 women, the public health nurse made her first visit before the patient had registered with a physician. As a matter of fact, a public health nurse called on 13 of the women who never saw a physician before delivery, so that they had had some preparation. Does it matter greatly who sees the patient first, the physician or the nurse? The nurse will urge the patient to see the doctor as soon as possible, and the wise doctor will ask the nurse to call.

Summary

Questionnaires on obstetric care were filled out by cooperating physicians in a high percentage of births in the county during this study. Other information was gathered from nursing practice. Any such self-study reveals achievements of which to be proud and gaps to endeavor to fill. By recognizing these gaps and filling them, we make progress. Substantial numbers still need more prenatal care, and earlier, whether it is care from a physician or education from a nurse. At delivery, conservatism still pays dividends.

The questionnaire is recommended for use as one of the good methods of study. It is better, however, to start tabulation while the study is still in progress.

The results of this study will be made available locally for the use both of the Department of Health and of the Medical Society.

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Discussion

Dr. Elizabeth Parkhurst, Albany—Dr. O'Brien has presented a very interesting summary of some of the many factors in obstetric care. His data relating to prenatal care and economic status, particularly, should be useful to the public health administrator. As he stresses in his report, the analysis of the outcome of delivery in a study of this size has the unavoidable limitation of small numbers. Many of the apparent conclusions are of necessity rather tentative and preclude detailed analysis. We have, for instance, the striking statement in Table 4 that the infant mortality among nonoperative deliveries was 5.3 per cent, or almost double the mortality among operative deliveries (2.9 per cent). It is interesting to compare these figures with the neonatal mortality for the entire upstate area, the corresponding information for the mortality among older infants not being readily available. In the last six months of 1940 the neonatal mortality among nonoperative deliveries was practically the same as among operative deliveries: 2.5 and 2.6 per cent. When, however, the rates are based on full-term births only, the nonoperative deliveries show a much lower mortality—1.2 per cent as compared with 1.8 per cent for the operative cases. In other words, since the neonatal mortality among premature infants is more than twenty times that among full-term infants, and the incidence of prematurity, which is about 4 per cent for non-operative cases, varies from less than 2 per cent for midforceps deliveries to 10 per cent for cesarean, any inquiry into infant mortality associated with method of delivery must consider premature and full-term infants separately.

To a worker in the field of public health, one of the main value of studies such as that made in Cattaraugus County lies in the impetus they have given to the state-wide routine collection of pertinent facts regarding complications of pregnancy and labor. In the past this information has had to be secured locally and at considerable cost. When, however, following the pioneer efforts of a number of county medical societies, it became apparent that doctors would welcome active participation by the State Department of Health in a detailed statistical inquiry into the causes of maternal and infant mortality, provision was made on the reverse side of the birth certificate for answers to some of the basic questions with which Dr. O'Brien's report concerned itself. The fact that these optional questions are now answered (gratis!) on more than 90 per cent of the certificates is ample evidence of the realization on the part of the individual medical attendant at a birth that it is only by pooling the observations made by a large section of the profession that the means may be found for the further reduction of the loss of life among mothers and infants.

Dr. Earle G. Brown, Mineola, New York—Dr. O'Brien and the department which he so ably served are to be congratulated on their contribution in this study of the various factors in maternal care which

might have a bearing on infant and maternal mortality. They have emphasized, from the public health point of view, numerous items which prevent or contribute to this mortality:

1. The study is based on data secured from 2,253 resident and 643 nonresident births, or 81 per cent of the 3,562 births reported during a period of two and one-half years. Presumably, follow-up was not made to secure "blue slips" in the remaining number of births. The question naturally arises as to whether or not data on these births would have influenced the total figures.

2. Routine examinations such as urinalysis, blood pressure, and weighing were consistent. One out of 10 patients, however, did not have a pelvic measurement. Possibly the mortality in both infants and mothers may have been higher than in the group that had such measurements.

3. In the case of the rural mother, and in the absence of hospitalization, more reliance was placed in the public health nurse. This demonstrates the need for an intensification of additional trained assistance for the physician at the time of delivery.

4. The need for further intensification of public health nursing service is noted in the "marginal" and "welfare" cases. Whereas, nearly 60 per cent of the cases of "good" economic status received pre-

natal care in the first trimester, this percentage dropped to 29.7 in the "marginal" group and was only 21.2 per cent in the "welfare" group.

5. Of 396 cases, 160 had no postpartum examination, but only 37 patients refused such examination. In 249 cases the patient saw the physician and some examination was made, but in only 10 did this include a pelvic examination. The lack of such examinations demonstrates the need for emphasis in the educational prenatal and postnatal program in order to set up an objective to be achieved by the patient as well as the physician—with the public health nurse as the connecting link.

6. The questionnaire provided an excellent method of making this special study, which otherwise could not have been undertaken. In 70 per cent of the births there was an interval of only one month between the time of birth and the return of the "blue slip." The questionnaire form may be used in other studies but only with the consent of the local medical society.

7. The results of the study will be available not only to the health department staff, but also to local physicians. Without doubt, if a similar study should be made in succeeding years, there would be a marked increase in certain services that could now be considered deficient.

HADASSAH SENDS AID TO PALESTINE

Notified by cable from Jerusalem that Palestine is faced with a threatened shortage of nurses, Hadassah, the Women's Zionist Organization of America, granted an appropriation of \$2,000 out of its war emergency fund to open a new class in the Henrietta Szold School of Nursing in Jerusalem, which is the largest nurses' training school in the country. It is maintained by Hadassah and Junior Hadassah.

The information that more nurses are needed in Palestine to cope with wartime conditions and the request for the immediate training of additional students came from the Hadassah emergency committee in Jerusalem. This will be the first time since the school was opened in 1918 that a midyear class will be begun, according to Mrs. A. P. Schoolman, chairman of the Palestine Committee of Hadassah, who said that trainees will be selected from a waiting list of 320 registrants.

Pointing out that the increase of allied troops, including Americans, in Palestine, and the poor health of recent immigrants necessitate wider medical and health services, Mrs. Schoolman said the Hadassah Medical Organization is doing its utmost to prevent epidemics, and in spite of the scarcity of many foods, "to maintain a high standard of health among the civilian and military population."

The threatened lack of nurses in Palestine, Mrs. Schoolman declared, is due in part to the enlistment of "many hundreds" in the armed forces, serving in Egypt, Syria, Iraq, and other Middle East countries.

A recent survey, Mrs. Schoolman stated, has revealed that more than 1,200 nurses are now on active duty in Palestine, and only 19 nurses are listed as "unemployed." Many of the nurses returned to the profession since the outbreak of the war after taking refresher courses in the Hadassah School. Sixty-five per cent of them are mothers, and to make it possible for them to serve, the Hadassah Medical Organization has established nurseries for the care of their children.

In addition to the undergraduate course, the Henrietta Szold School of Nursing is giving postgraduate courses in health welfare, operating room technic, midwifery, dental and oral hygiene, hospital social service, preventive medicine, and radium technic, and is also training hundreds of volunteer nurses' aides. A number of Polish Red Cross volunteers are being given practical training in the Jerusalem school and in the outpatient department of the Rothschild-Hadassah University Medical Center.

The sum of \$100,000 was cabled to Palestine by Hadassah from New York City in January to provide emergency feeding and to start a long-range program of education for 600 Polish-Jewish refugee children who, after three years of wandering and four months of enforced waiting in camps outside of Teheran, Iran, are now on their way to the Holy Land, where they will be permanently settled. Hadassah announced that the Polish Government-in-Exile had agreed to pay part of the maintenance costs for this group, once they reach Palestine.

THE PRESENT STATUS OF GOLD SALT THERAPY IN EUROPE AND AMERICA IN THE TREATMENT OF CHRONIC ARTHRITIS

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GOLD therapy has been used in France and England during the past fifteen years, but until seven years ago its use was practically unknown in this country. While American physicians were aware of the enthusiastic reports made by many European rheumatologists on this form of therapy, their willingness to make it available to their patients was to a large extent chilled, or counteracted, when they learned of the frequent occurrence of toxic reactions which often followed the use of gold salts. These toxic reactions vary in degree of severity, but a certain percentage of them are severe, and in a small percentage of cases they may even prove fatal.

Gold therapy is a peculiar and extremely interesting type of treatment, for whenever it is introduced into a country, it invariably arouses bitter controversy among members of the medical profession as to its relative value. The battle still rages with undiminished intensity. In France and England gold therapy is now apparently accepted by the majority of rheumatologists as being the best form of treatment available at the present time for rheumatoid arthritis. In this country gold therapy has not gained general acceptance by the medical profession; it is still on trial. To date, its use does not have the official approval of either the American Rheumatism Association or the American Medical Association.

While this statement is true, it must be admitted that during the past five or six years a gradually but steadily growing interest in the scientific aspects of gold therapy has been perceptible among the various members of the American Rheumatism Association. It is also significant that during the past three years the interest has been greatest among the medical research men of the American Rheumatism Association, who are pooling their efforts to determine how gold acts and how to prevent toxic reactions. As a result of their research, some progress has unquestionably been made, but still many questions concerning gold therapy remain unanswered. These unanswered questions constitute a definite challenge to the research staffs of our great universities.

An attempt will be made in this paper to review the present knowledge of the subject both from an experimental and a clinical viewpoint. At the same time a brief report will be given of our own experience with gold therapy covering a period of seven years.

As early as 1493 the use of gold in the treatment of scurvy was described.¹ Since then many

references to the use of gold in the treatment of tuberculosis and other chronic diseases have appeared in the literature.

It was not until 1929, however, that any report appeared on the use of gold in the treatment of chronic arthritis.

During 1929, Umber,² of Germany, and Forestier,^{3a} of France, both reported on the use of gold compounds in rheumatoid arthritis. Forestier, in 1928, started using gold salts and gave them to practically all his patients who suffered with arthritis during the following five years. The credit for popularizing the administration of gold in rheumatoid arthritis belongs to Forestier, although others have perhaps made more fundamental and critical contributions toward a comprehension of its value.

His first large series of cases with gold salts was published in 1934,^{3b} at which time he reported on the results obtained in treating 500 arthritics. Owing to lack of experience in estimating the initial dose and the maximum single dose, as well as the total dosage for any one series, many severe toxic reactions were unavoidably encountered. A mortality rate of 3 per cent occurred during the first five years of his work. Approximately the same percentage of mortality was later reported by Hartfall and Garland.^{4a}

The results of Forestier's five years' study were as follows: 70 to 80 per cent good results; 40 per cent toxic reactions. It is true that most of the toxic reactions were mild, but 10 per cent were reported to be serious, sometimes lasting several weeks or even months. It should be emphasized that in their early work, the European investigators gave, as an initial dose, from 200 mg. to 500 mg., but later, because of the numerous toxic reactions which developed, the initial dose was reduced to 50 mg. and finally by many workers, including Forestier, even to 10 mg. Forestier's results were confirmed, in general, by many other European workers, including such well-known authorities as Slot,⁵ Buckley,⁶ and Sostberg, Schade, Steuber, and Warburg.⁷

In 1937, Hartfall, Garland, and Goldie,^{4a} of England, published what has since been regarded as a classic and an authoritative review of their results from 900 cases treated over a five-year period.

In our country, Hench,⁸ in the 1939 *Annual Review of Rheumatism*, advised, "any American contemplating the use of gold salts to make a thorough study of Hartfall, Garland, and Goldie's

report before instituting treatment." Their results were as follows: 80 per cent improvement; 46 per cent of the entire group had toxic reactions, 40 per cent of which were mild and 10 per cent serious, and 1 per cent of which resulted in death.

In 1938, Hartfall, Garland, and Goldie^{4b} again reported on 1,200 cases (900 of which were included in their former report), the largest series reported to date. Their results were about the same as those previously reported. However, the importance of this survey was the fact that it included a report on a new gold salt called parmanil. This gold salt, on the whole, was found to be almost as efficacious as myochrysine, but, in their opinion, less toxic.

In regard to the total dose per series, opinions range from 1 Gm. (Hartfall, Garland, and Goldie^{4a}), 1.3 Gm. to 2 Gm. (Forestier^{3b}), to 2.5 Gm. (Bach⁹). Rest periods between series of injections vary from six weeks (Forestier^{3b}), to between two and three months (Hartfall, Garland, and Goldie^{4a}), to six months (Baker¹⁰).

The general consensus of European opinion with regard to the value of gold salt therapy in the treatment of arthritis, after twelve years of experience, is demonstrated by the following quotations: "greatest step forward in therapeutics of arthritis" (Douthwaite, of England¹¹); "results incomparably better than any obtained heretofore, but a dangerous drug" (Stone, of England¹²); "our best and most effective weapon against rheumatoid arthritis, almost 100 per cent effective in the first year, 80 per cent in the second year, and 70 per cent in subsequent years" (Hartfall, Garland, and Goldie, of England^{4b}); "a therapeutic measure of the first order" (Baker, of England¹⁰); "useful in any rheumatic type of arthritis, with proliferative synovial reactions including gonorrheal and tuberculous arthritis" (Bach, of England⁹); "gold salt therapy is quite the most potent now available, but it is attended by not a little risk and should only be undertaken when the case is severe enough to warrant such a very real risk and this should be explained to the patient before treatment is instituted" (Crosby, of England¹³); "I do not like to use gold salts because of the risk of complications" (Willcox, of England¹⁴); "my results so far have been excellent, and the general condition of the patients has been much improved" (Secher, of Denmark¹⁵); "results surpass those of any other therapy, but extremely dangerous" (Van Breemen, of Holland¹⁶).

The general consensus of American opinion up to the time of Forestier's visit to the United States in 1934 was distinctly hostile to the use of gold salts in the treatment of arthritis. The American physicians felt that the European authorities were too enthusiastic in their reports on

the value of gold salt therapy. They could not understand their European colleagues' apparent indifference to and disregard of the high incidence of toxic reactions. It is interesting to note, however, the gradual change in opinion during the past five years. The first statement of American opinion on the use of gold salts was made by Cecil,¹⁷ in 1934, who said: "My experience with gold salts in the treatment of rheumatoid arthritis has been rather limited. Patients whom I have treated by this method have never shown very striking results. Perhaps a larger experience with gold salt therapy might change my opinion." The second American opinion was expressed by Hench in the 1935 *Annual Review of the American Rheumatism Association*, in which he stated that the "Americans were off the gold standard." The following year, the Reviewing Committee of the American Rheumatism Association¹⁸ made the statement that none of the editors had used this method of treatment, but they pointed out that no current treatment for arthritis had a mortality rate of 3 per cent. Therefore, they stated that the results obtained from this type of therapy would have to be unquestionably superior to warrant the risk.

In 1937 the author and his associates presented the first paper on gold therapy read before the American Rheumatism Association. The report was based upon a controlled series of 100 cases; only cases were selected for treatment which had previously proved refractory to every other known form of treatment. In this group 48 per cent of the cases of rheumatoid arthritis showed a definite clinical improvement. For this reason we considered gold therapy a new and valuable treatment if used by those thoroughly conversant with its dangers. The discussion of the paper following its presentation was polite but distinctly skeptical.

In 1938, Keys reported on another carefully controlled series of cases, and to a large extent corroborated our findings. Following Keys' report, gold has been tried out extensively in several of the large university and research clinics in this country with varying degrees of success. In general, the clinical results obtained are the same as those reported in France and England. To date there has been no new method perfected in this country that has proved of definite value in avoiding toxicity or in neutralizing the toxic symptoms that occasionally follow the use of gold therapy once they occur.

Fifteen years of experience in Europe with various gold salts has failed to reveal any marked difference in either the therapeutic or the toxic properties of the various gold salts in common use. It is difficult to compare their action in view of the fact that most of them have a differ-

ent percentage of gold. It is almost impossible to select for comparison or control different series of arthritic patients identical in type and in degree of sensitivity to gold. Included in the list below are the more commonly used gold salts, with their trade and chemical names as well as their gold content.

Name	Content of Gold
Sodium	35%
Gold sodium	37%
Gold sodium	37%
Gold sodium	40%
Solganol B—auro-thio-glucose	44%
Myochrysin—auro-thio-malate of sodium	50%
Aurol-sulfide—Au ₂ S ₃ colloidal gold sulfide	97%

The most commonly used gold salts in America are myochrysin, sancocrysin, solganol B, and aurol-sulfide. Most observers in this country and abroad feel that myochrysin is probably the most effective gold salt, but it also appears to be slightly more toxic than others. The authors prefer to use gold sodium thiosulfate, for, while apparently not quite so efficacious, it has proved to be less toxic in our hands. Most workers report 30 per cent to 40 per cent toxic results with myochrysin, but we have only had 17 per cent toxic reactions with gold sodium thiosulfate. Still others prefer solganol B, but as this is a German preparation, it was not available in this country until recently because of the war.*

The mode of action of gold salts is, to a large extent, unknown. Freyberg¹⁹ has shown that while approximately 30 per cent of the gold is excreted by the kidneys and the intestines, approximately 70 per cent is stored in the tissues of the body. He has also shown that four times as much gold is excreted in the urine as is excreted in the feces. Hartung²⁰ has demonstrated that the kidneys excrete six to seven times as much gold as the intestines. Just how long the gold does stay in the body is uncertain, as it varies with different patients. Freyberg and Hartung have demonstrated that in some of these cases gold was excreted through the kidneys as long as from ninety to three hundred days following the last injection. Recently Freyberg and his associates have demonstrated that gold was still being excreted in one of our cases 509 days after the last injection. They also found gold in the skin of one of our cases, showing a persistent skin

eruption two and a half years after the last injection.

We know that toxic reactions may occur as late as two or three months, or even longer, subsequent to the last dose of gold, and it is because of the danger of these delayed toxic reactions that the question of how long gold remains in the tissues and how long the interval between each series should be has arisen. These questions, obviously, cannot be satisfactorily answered at the present time.

How Does Gold Act?

Feldt²¹ showed that when gold compounds are combined with sulfur compounds, the toxicity of gold is decreased, as evidenced by the fact that when the gold was combined with sulfur, he could administer relatively larger doses to animals without encountering toxic reactions. This apparently was an important and practical contribution to our knowledge of gold therapy, for even up to the present day every gold salt used in the treatment of arthritis contains a certain percentage of sulfur.

From the findings of his experimental work in combining gold and sulfur, Feldt concluded that the beneficial results observed with the use of gold salts in the treatment of streptococcic infections were due to their stimulating effect on the reticulo-endothelial cells. Feldt, Lewy, and Freund²² found that gold salts have no effect on acute streptococcic infections, but, on the other hand, they produced gratifying results upon the chronic streptococcic infections.

According to Koppenhofer,²³ colloidal gold is stored almost exclusively in the reticulo-endothelial cells of the liver, spleen, and bone marrow, and the inorganic gold compounds deposit gold principally in the parenchymal cells, especially in the liver, spleen, and kidneys. This may possibly explain why the inorganic compounds are most active but, unfortunately, much more toxic.

Michelazzi²⁴ found that while gold in small quantities is deposited in the reticulo-endothelial cells of the normal joints, it is deposited in much larger quantities in the same cells where the joints are diseased. This is undoubtedly due to the hypertrophy of the synovial membrane, which always takes place in rheumatoid arthritis, as there are many more endothelial cells found in a diseased joint membrane than are present in a normal joint membrane. These findings have recently been confirmed by Freyberg and his associates in their experimental work done on gold at the Raeburn Research Department of the University of Michigan.¹⁹

Sabin^{25a} has recently demonstrated that he can cure 94 per cent of acute arthritis cases produced by the pleuropneumonia-like organisms in mice

* Myochrysin is supplied by Merck & Co in ampules of 0.05 Gm and 0.10 Gm. Sancocrysin or gold sodium thiosulfate is available from the Abbott Laboratories in ampules containing 10-, 25-, 50-, 75-, 100-, 250-, and 500-mg crystals, which must be dissolved in sterile water just before administration. Solganol B is supplied by Schering in ampules of 10, 25, 50, and 100 mg. Aurol-sulfide is supplied by Hille Laboratories in 25-cc. vials of 1/2, 1, and 2 per cent solutions.

if the animal is treated by myochrysine or gold sodium thiosulfate any time within the first week after the first appearance of arthritic symptoms or physical signs. He can also completely cure a fairly large percentage of these mice if the animal is treated any time within the first month after the first appearance of symptoms or physical signs. At the end of the first month permanent damage is apt to occur in the cartilage and other structures of the joint. Permanent damage cannot be repaired, but subsequent treatment will often prevent further extension of the disease. If it were permissible to assume that we are justified in comparing these animal experiments with human arthritis, Sabin's work would be a good argument for instituting gold therapy early during the first month after the first appearance of arthritis in man. At the present time, though, there is no evidence indicating that any definite relationship exists between human arthritis and that which Sabin has produced in mice. Therefore, the results obtained in the treatment of his experimental arthritis in animals are not applicable to therapy in human arthritis. Many Europeans, however, claim that gold therapy should always be used as early as possible and that results justify the risks.

Dawson²⁶ confirmed Feldt's work, but he differs from Feldt in his conclusions. Whereas Feldt thought that gold acted by a general stimulation of the reticulo-endothelial cells, Dawson is inclined to believe that the chief beneficial effect is due to a direct bacteriostatic effect on a chronic streptococcal infection. He points out that "while the streptococcus has never been proved to be the cause of rheumatoid and infectious arthritis, there is, however, a certain amount of indirect immunologic evidence suggesting that the streptococcus, if not the primary cause, is certainly an important contributing cause. It is not surprising, therefore, that gold salts have a beneficial effect in these two types of arthritis because by their bacteriostatic effect on the streptococci, they may materially aid the patient in overcoming the disease."

Freyberg has recently demonstrated the presence of gold in the synovial fluid aspirated from the joints of patients suffering from rheumatoid arthritis.

Many observers have questioned the contention that metallic gold alone is responsible for beneficial effects. In 1937, two Japanese workers, Yanagesawa and Kawai,²⁷ pointed out that the beneficial results observed from gold salts might be due to the sulfur which they contained, and this contention was somewhat strengthened by Feldt's original discovery that gold worked best in the presence of sulfur. Recently, Freyberg published a report stating that he was unable

to find any evidence of sulfur deficiency or sulfur abnormality among his patients suffering from arthritis. As a result of his findings, Freyberg stated that he believed there was neither a metabolic nor a biochemical indication for sulfur therapy in arthritis, and that for this reason it was reasonable to assume that no possible benefit could be derived by arthritics from its use. These experiments, however, do not successfully explain why it is necessary to have a combination of sulfur with gold in order to obtain a satisfactory, relatively nontoxic substance that can be used with a comparative degree of safety in the treatment of arthritis.

Cumulative clinical experience would seem to indicate that the percentage of gold in any gold salt is a very important factor in producing clinical results. Apparently, the higher the percentage of gold, the better the clinical findings. According to Parr and Shipton, of Australia,²⁸ the only active gold salts are those which contain a high proportion of gold, 40 to 60 per cent combined with a sulfur radical.

Lawrence and Ellman²⁹ treated 40 cases of arthritis, 20 with small doses of gold (100 mg.) and 20 with large doses of gold (200 mg.). They obtained 50 per cent improvement in the cases on large doses of gold, but only 30 per cent improvement in cases on the small doses. This experiment apparently demonstrated the necessity of giving large doses of gold in order to obtain the best therapeutic effect. Lawrence and Ellman also demonstrated an important point—namely, that a large part of the improvement was not due to the psychic effect. They carried out a control series, giving oil in 20 cases, and obtained only 5 per cent improvement.

Toxic Reactions

Upon a thorough review of the literature, it must be admitted that gold salts are of definite therapeutic value, especially in the treatment of rheumatoid or infectious arthritis. Unfortunately, this form of therapy has a very serious drawback because its use is often accompanied by, or later followed by, undesirable toxic reactions. While the majority of these reactions are transient, some are serious, and a very small proportion are even fatal.

The degree of toxic reactions to gold salts is apparently an individual matter. While it is broadly true that large doses given at the beginning of treatment have produced serious toxic reactions, it is also our experience that even minimal doses of gold at the beginning of treatment have produced severe toxic reactions in sensitive patients.

Toxic reactions have occurred from as little as 15 mg. of gold and they have also occurred sev-

eral months after the cessation of the second course. At the present writing, it is permissible to state that there is no period during the entire administration of gold treatment in which one can feel sure that the patient has escaped the danger of toxic manifestations.

In our previous communication³⁰ we published the dosage scheme for the intravenous use of gold sodium thiosulfate in rheumatoid arthritis which over a period of five years has been found to be most efficacious in our hands. We repeat the series schedule here:

1. 5 mg.	6. 75 mg.	11. 100 mg.
2. 10 mg.	7. 100 mg.	12. 100 mg.
3. 15 mg.	8. 100 mg.	13. 100 mg.
4. 35 mg.	9. 100 mg.	14. 100 mg.
5. 50 mg.	10. 100 mg.	990 mg.

The consensus of the great majority of rheumatologists is that an interval of at least two months should be allowed between the first and second courses. It is generally agreed that patients should always have at least two courses of treatment, whether or not the results following the first series have been considered satisfactory. If steady improvement is obtained, it might be wise to go on with further treatment. If no improvement is shown at the end of three courses, the treatment should be discontinued.

During the past two years a new gold salt has appeared on the market in England. It is called parmanil and was first used by Hartfall, Garland, and Goldie.⁴⁹ In a series of 50 cases, they reported 26 per cent toxic reactions and almost as good clinical results as with myochrysin. Although this represents a drop of almost 15 per cent in the percentage of their toxic reactions, unfortunately they still obtained almost the same percentage of serious toxic reactions (6 per cent) as they did with the more active gold salt. However, they did not report any deaths in this particular series, whereas they reported 1 per cent in their previous series in which myochrysin was used in most of the cases treated.

In our first series of 100 cases of chronic arthritis treated by the intravenous use of gold sodium thiosulfate, we reported only 17 per cent toxic reactions, or approximately one half the percentage of toxic reactions one would expect to see following the use of myochrysin. During the past three years, in spite of exercising all the precautions previously referred to in this article, we have not succeeded in further reducing this percentage. Our percentage of definite clinical improvement continued to be approximately the same as that of our first series, which was 48 per cent. This percentage of improvement is not so high as that reported by most other authorities,

but it should be remembered that our report was based on cases studied over a two-year period—cases which had previously proved refractory to most of the commonly accepted forms of treatment. It is true that we have succeeded in lowering the percentage of our serious toxic reactions to 3 per cent. But while this is gratifying, since most writers both here and abroad state that they see approximately 6 per cent serious toxic reactions, even 3 per cent serious toxic reactions is still too high a figure. In 1 per cent of the cases reported in the literature, a fatality has occurred, and probably all fatalities are not reported.

As yet, there is no known method of avoiding toxic reactions. By starting with small doses and keeping the first few doses at the same level, the percentage of toxic reactions seems to be decreased. It has been claimed recently by Secher, however, that in a series of 150 cases of arthritis treated by him, all toxic reactions were eliminated by the administration of four times the normal requirements of vitamins B₁, B₂, C, and D. The accuracy of these findings should be checked in the large arthritic clinics in this country.

Parr and Shipton⁵² report that women are eight times more susceptible to toxic reactions from gold salts than are men. This emphasizes the extreme importance of being particularly careful in administering gold salts to women.

In our clinic at the Hospital for Special Surgery we have never used gold salts in early cases of arthritis. It seems justifiable, however, in spite of the danger of toxic reactions, to try the gold salts injections in those cases in which all other previous therapy has failed. Even in such cases, the danger of the treatment should be thoroughly explained to the patient. It should be emphasized at the same time that failure to check the disease may result in a "wheel chair" existence, and that consequently a certain amount of risk is justified. The doctor should have the patient sign a release from any legal responsibility in regard to any toxic reactions that might occur.

Colloidal Gold

As to the relative therapeutic efficacy of colloidal versus crystalloid metals, much still remains to be learned. Owing to the claim that they are nontoxic, we felt that it might be wise to test, in cooperation with several other clinics, the relative efficiency as well as the degree of toxicity of the safer colloidal salts, particularly in cases that had previously proved to be sensitive to the inorganic gold salts.

In so far as our own experience with aurolsulfide is concerned, we obtained, out of 28 cases treated in the clinic, one apparent cure and 10 cases of partial improvement. However, we found that, although it was less toxic, it was not

effective enough in our opinion to warrant its use in refractory cases of arthritis. In these difficult cases, if gold is used as a final resort, it is justifiable to use the gold compounds that are known to be most effective even if they are slightly more toxic.

In regard to the degree of toxicity, auro-sulfide is definitely less toxic than myochrysine and gold sodium thiosulfate, but, in fairness to these older products, it should be pointed out that auro-sulfide is also apparently much less effective. In our series of 28 cases we had only three minor toxic reactions with one skin eruption which lasted two months, and we had no serious reaction. In our first experiment with auro-sulfide we used from 1 to 5 cc. of a 1 per cent solution only and gave this intravenously. In these doses we had no toxic reactions, but we observed no clinical improvement. We finally obtained a 2 per cent solution and gave this in doses of from 5 to 10 cc. intravenously and then, as the dosage increased, we began to observe a corresponding degree of improvement in the clinical results observed. In contrast to our clinical findings, Sabin's report is that he observed no clinical improvement in his mice suffering from experimentally produced arthritis following the intravenous use of auro-sulfide. Freyberg¹⁹ has recently reported that he could find no trace of auro-sulfide in the blood stream of his patients a few seconds after a single dose of as much as 6 cc. of a 2 per cent solution had been injected intravenously. It is true that Freyberg did not test the blood for gold after 10 cc. of auro-sulfide had been given at one dose; neither did he test it after the dose had been repeated several times. We do know that auro-sulfide is rapidly removed from the blood stream and deposited in the reticulo-endothelial cells. Whether this produces a beneficial or a harmful effect has not yet been determined.

During the panel discussion on arthritis at the 1941 meeting of The American College of Physicians and Surgeons in Boston, Dr. Walter Bauer, of the Massachusetts General Hospital, insisted that the case for gold salt therapy in arthritis was not yet proved. He pointed out that in a survey of 1,800 cases reported in the literature as having been treated by gold salts, toxic complications occurred once in every 30 cases and a mortality once in every 200 cases. He also pointed out that, except for two series,* in this country there has been no well-controlled study of results of gold therapy in arthritis. He emphasized, too, that, in all but a very few series, the percentage of improvement presented in the

literature in support of gold therapy did not differ materially from those obtained at the Massachusetts General Hospital with rheumatoid arthritics who received six to eight months of good general hospital care and the ordinarily accepted safer methods of treatment.

Dr. Sabin²⁰ has recently been treating his mice suffering from arthritis produced by the pleuropneumonia-like organism with a new insoluble organic compound called "calcium aurothioglycolate" and has found that while it apparently is nontoxic when given in the maximum doses that can be administered to a mouse, it nevertheless exercised a striking curative effect on this type of acute arthritis in mice. Up to the present time nothing has appeared in the literature by Sabin or other workers to report whether or not this salt is nontoxic to the human being who suffers from arthritis. Neither have we any reports concerning its curative effects on acute rheumatoid arthritis in man.

The authors, therefore, feel that auro-sulfide and other colloidal gold salts, as well as calcium aurothioglycolate, will have to be tested much more extensively in this country before we can get any true appreciation of their therapeutic value in comparison with that of the other organic and inorganic gold salts that have been found, to date, to be efficacious, but sometimes toxic, in the treatment of arthritis.

Conclusions

1. Gold salt therapy has been found to be effective in cases of rheumatoid, infectious and mixed forms of arthritis which have failed to respond to other types of treatment. In our experience during the past five years, we found that gold salts were helpful in 48 per cent of our rheumatoid cases.

2. A survey of the literature on gold salts reveals that experienced rheumatologists have found gold salts to be an effective weapon in handling rheumatoid arthritis.

3. Gold salt therapy is dangerous because of its toxic reactions. The percentage of toxicity ranges from 16 per cent to 40 per cent. These toxic reactions seem to depend in part upon the type of gold salt used, as well as upon the patient's susceptibility.

4. In the use of gold salts, every effort should be made to minimize the possibility of toxic reactions. It is urged that the patient be watched carefully for early signs of reactions and that caution be exercised in determining the amount of the dosage.

5. Although some authors advise that gold should be used early in the treatment of arthritis, we believe that other less dangerous forms of therapy should be utilized first.

* These two series included 53 cases by Dr. Keys of St. Louis and our own cases. In both these series, cases were used in which all previous attempt at treatment had failed.

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NURSING SCHOOLS SEEK 1,000 STUDENTS FOR FEBRUARY CLASSES

An intensive campaign to persuade college girls to undertake nursing as a career will be carried on during the next few weeks by the New York City Nursing Council for War Service, 654 Madison Avenue, among college and university students, it has been announced by Miss Mary Burr, executive secretary of the Council.

"The need for greatly increasing the number of student nurses has never been so urgent as it is right now," Miss Burr emphasized, in making public an appeal to college girls and high-school seniors to give serious consideration to nursing as a field of "war work with a peacetime future."

An effort is being made to recruit 1,000 students for the new classes beginning in February in thirty-two schools of nursing in New York City, Westchester County, and Long Island; the quota for nursing schools throughout the United States is 19,000.

As part of the recruiting drive, groups of college girls are being taken on tours of local hospital schools of nursing and to view an exhibit on display

at headquarters of the Henry Street Visiting Nurse Service, 262 Madison Avenue.

Although particular emphasis is being placed on the recruiting of college girls, Miss Burr said, an academic high-school diploma is sufficient for admission to the February classes of the schools of nursing in New York City; a year or more of college, however, is considered valuable additional training. An increasing number of executive, teaching, and research opportunities will be available in the postwar reconstruction period for women who combine college and nursing education, Miss Burr predicted.

Girls entering schools of nursing must be between the ages of 18 and 35. Although the basic course takes three years to complete, extra credit resulting in shorter courses is now being given to students entering with college degrees.

Mrs. Langdon P. Marvin is president of the New York City Nursing Council for War Service, and Miss Eleanor Lee is chairman of the recruiting committee.

FOOD CHARTS

A twenty-page pamphlet entitled "Food Charts—Foods as Sources of the Dietary Essentials" has just been prepared by a joint committee of the Council on Foods and Nutrition of the American Medical Association and of the Food and Nutrition Board of the National Research Council. The charts are interesting and useful in that they show at a glance the proportion of the daily allowance provided by a selected serving of food. They should be valuable to those interested in teaching and in the application of practical nutrition. Included are the tables

of "Recommended Dietary Allowances" and of "Minimum Dietary Requirements." Written material accompanies each chart concerning the vitamin A, thiamine, riboflavin, niacin, ascorbic acid, protein, calcium, and iron contents of the common foods.

It is planned to print a large number of these pamphlets, and the cost will be covered by a small charge. Address: Council on Foods and Nutrition, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.—*Health News*

Therapeutics

CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the March 1 issue and will concern "Recent Advances in Sulfonamide Therapy."

The Management of Peptic Ulcer: II. Surgical Aspects

DR. WILLIAM DEW. ANDRUS: Having considered the medical aspects of peptic ulcer at the last conference, we are to take up today some of the surgical aspects of treatment.

The surgical treatment of peptic ulcer is essentially the treatment of its complications. On that point I think everyone is fairly well agreed. Differences of opinion arise, however, as to the application of surgery to particular complications, both as to the time when it should be applied and as to the method which should be used.

Dr. Cooper will consider certain of the complications of ulcer.

DR. WILLIAM A. COOPER: The treatment of the complications of peptic ulcer comprises a large subject.

By far the most common complication of peptic ulcer is penetration, which is to be distinguished from free perforation. It is characterized by marked and protracted ulcer pain, which fails to respond to the usual dietary measures, and, indeed, may not respond to any form of conservative treatment. Such an ulcer requires surgery when medical treatment has failed.

There are three operations which are commonly used—namely, gastro-enterostomy, gastro-enterostomy with excision of the ulcer, and gastric resection. There is some controversy as to which of these is preferable, but in recent years there has been a trend toward doing more gastric resections on such cases.

If a penetrating ulcer progresses, it may lead to the second complication—namely, a free perforation, particularly if the ulcer is on the anterior portion of the duodenum or in the stomach. The clinical picture is characterized by sudden onset of severe upper abdominal pain rapidly progressing to involve the entire abdomen, circulatory shock, and the classical boardlike rigidity of the abdomen. Such an occurrence, of course, leads to the development of peritonitis, and requires immediate operation. It should be emphasized that the mortality of the perforated ulcer is directly proportional to the time interval

between the perforation and operation. In the operative treatment there is again a choice of procedures—simple plication of the ulcer, plication and gastro-enterostomy or gastric resection. Since the majority of these patients are seriously ill, the lesser procedure is usually the one of choice—namely, simple plication of the ulcer.

The third complication is hemorrhage, which Dr. Holman will discuss.

The fourth complication is obstruction. Obstruction most commonly occurs in duodenal ulcers but may also occur in a gastric ulcer which is obstructing the pylorus, or in an ulcer anywhere along the lesser curvature associated with reflex spasm of the pylorus. Obstruction is characterized by vomiting quantities of food eaten many hours previously. Obstruction due to reflex spasm of the pylorus associated with an ulcer on the lesser curvature usually responds to dietary measures and does not require surgery for the obstruction *per se*. Obstruction at the distal end of the pylorus due to a lesion at that site is usually due to cancer and not ulcer, so the operative treatment is gastric resection in one or two stages, depending upon the condition of the patient. Duodenal ulcer is the most common obstructing ulcer and requires operation. Again there is a choice of gastro-enterostomy or gastric resection, but this type is most likely to do well with the simpler procedure, gastro-enterostomy.

The fifth and last complication of ulcer is malignant degeneration. Strangely, in spite of the frequency of duodenal ulcer, malignant degeneration at this site is so rare that it need not be considered clinically. Since duodenal ulcer and gastric cancer are so infrequently observed together—only once in the experience of the New York Hospital—it is possible that the presence of a duodenal ulcer may protect the patient against the development of gastric cancer. In gastric ulcer the possibility of malignant degeneration must be considered. Just how frequently gastric ulcer becomes gastric cancer will probably never be known definitely. It is likely that this is not

very common, and the figure is less than 5 per cent. Yet in every gastric lesion which looks like an ulcer on x-ray, cancer must be considered, and the number that are cancer is well over 5 per cent. For this reason the gastric ulcer presents a very different problem from the duodenal ulcer. Gastric lesions away from the lesser curvature are almost always cancer. The ones near the pylorus are about 90 per cent cancer, and as one proceeds above the pylorus the incidence of cancer decreases.

Clinical examination fails to distinguish gastric ulcer from gastric cancer that looks like ulcer. The x-ray examination is only about 75 per cent accurate in differentiating one from the other. The gastric analysis has its exceptions. The naked eye is fallible, and the gastroscope is likewise fallible. In fact, the only reliable differentiator is the microscopic section.

For practical purposes, then, we must have a set of rules to guide us in the treatment of gastric ulcer. Probably the safest rule is to do a gastric resection on any gastric ulcer which fails to heal and remain healed after, at most, five or six weeks of medical treatment. This does not mean that the recurrent lesion should be given another five or six weeks, for the recurrence may very rapidly grow into inoperable cancer.

Now I will give you a few figures on the incidence of these various complications in the New York Hospital series. These figures comprise a summary of the entire experience of the cases admitted to the hospital, on both the medical and surgical services, from 1932 through 1939. Total cases, 885; duodenal ulcer, 718; gastric ulcer, 172; now dead, 103; cases operated upon, 339; operative deaths, 26 (7%).

As you see, the total number of cases is 885, so ulcer is a pretty common disease. They are divided into 718 duodenal ulcers and 172 gastric ulcers, a ratio of about 5 to 1. You will obtain some concept of how serious the complications of ulcer are, for about 103, or about 12 per cent, of the 885 patients are now known to be dead.

As to the distribution of the various complications, penetrating ulcers, of course, comprised a large percentage of the ulcers that were admitted to the hospital. It must be remembered that there were many times 885 cases seen in the outpatient department, and only those that did poorly in the outpatient department were admitted to the hospital. It is likely that well over half of this number, therefore, had some element of penetration or marked activity of the ulcer. There were 85 cases (9.6 per cent) of perforated ulcer, that is free perforation into the peritoneal cavity. There were 170 cases (19 per cent) in which bleeding was a marked symptom, and there were 80 cases (9 per cent) in which obstruction was a prom-

inent feature of the lesion. There were many more cases in which the obstruction was not marked. The number which had carcinoma-degeneration I am unable to give you because that is a controversial question which is difficult to decide in each individual case. However, in a few cases it seems certain that there was carcinomatous degeneration in a gastric ulcer of long standing.

The distribution of operative procedures was as follows: Posterior gastro-enterostomy was done in 172 of the 885 cases; the operative mortality was 4.6 per cent. Gastric resection was done on 162 cases and most of these, I might add, were done in the last four years; the operative mortality of resection was 8 per cent, almost twice that of gastro-enterostomy. Most of the 85 perforated ulcers had a simple plication; the mortality was 7 per cent. Excision and posterior gastro-enterostomy was done on relatively few (13 cases), with no operative mortality. Of the secondary gastric operations there were 32 cases, with a mortality of 12.5 per cent.

The results of these operations are of particular interest, for it is through observation of cases for a long period after operation that we have learned so much about peptic ulcers. The observations have emphasized the constitutional factors in peptic ulcers, for new ulcers have formed in patients in whom the old ulcer was removed. They have also taught surgeons to resort to operative treatment with some caution, for secondary operations on the stomach are not as simple as the primary procedures.

Let us first consider the results of gastro-enterostomy, which was done on about 20 per cent of all the cases admitted to the hospital. Of those having gastro-enterostomy, 12 per cent are now known to be dead. About half of the deaths were due to causes other than ulcer. About 70 per cent have had a good result, with no serious recurrence of ulcer symptoms. Another 8 per cent have been greatly improved but have had one or more recurrent attacks which prevent their being classified as a good result. Another 8 per cent have had recurrent ulcers of a serious nature, most of them marginal ulcers. About 3 per cent have required further operative treatment. Two per cent have been lost. The best results of gastro-enterostomy were in the older patients having obstruction.

The results of gastric resection are a little better, but it is to be noted that the improved results are largely due to the absence of poor results from marginal ulcer. Good results have been noted in 72 per cent of the cases, while 14 per cent are greatly improved. Two per cent have a poor result but are living, and 2 per cent are lost. Ten per cent are now dead—2 per cent owing to causes other than ulcer. Comparison

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fifteen years it has become more and more popular. Polya reported that about 260 types of gastric resection have been employed so far. This probably means that none of them is uniformly effective in reducing acidity, and that has also been our experience to a limited extent.

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DR. ANDRUS: There are a few comments I should like to make at this point. One is that the total number of 386 operations in the 885 ulcer cases summarized by Dr. Cooper is not excessive. It indicates a reasonably conservative attitude on the part of the surgeons.

Dr. Cooper neglected to mention specifically one group of cases of perforation which we ordinarily refer to as subacute as distinguished from penetration and free perforation. In that group we include the cases in which perforation occurs so slowly that it is walled off or those in which, because of the location of the ulcer, there is perforation in the lesser sac or in the region of the omentum rather than free into the general peritoneal cavity from the small space on the anterior surface of the duodenum and pyloric end of the stomach. In this situation the liver moves up and down with respiration and so tends to diminish the likelihood of walling off of a perforation.

Dr. Holman, in speaking of the regimen for bleeding, did not specifically detail what the conservative treatment is, and I believe that it differs considerably on the medical and surgical services. In general our tendency on the surgical service is not to feed these patients, certainly not to feed them early in their course in the hospital,

whereas I think the medical service is coming more and more to adopt a policy of feeding. Perhaps someone from the medical service would like to discuss the treatment of bleeding ulcers from this angle.

DR. C. H. WHEELER: The routine which we have employed on the medical service for the last two or possibly three years is to feed all cases of bleeding ulcer from the very beginning. The feedings consist of the routine Sippy regimen with the addition of various types of soft food including milk-toast, custard, junket, smooth cooked cereals, and pureed vegetables. A good many of us who were in the hospital in the days when we used to starve the patients and treat them with parenteral fluid for a period of time, as is done now in the surgery pavilion, feel that since we have been feeding them, the results are better than when nothing was given by mouth. The patients seem to get more prompt relief of pain, the bleeding seems to stop just as quickly, and finally—and this is certainly important—their stay in the hospital and the time required to bring their blood counts back within normal limits appear to be greatly shortened.

One important point which should be emphasized in this connection is that an appreciable percentage of patients with bleeding ulcer are perforating or have perforated when they come into the hospital. Before starting to feed a patient with a bleeding ulcer, one should feel sure that it has not perforated, or is not about to perforate, because if such is the case, naturally one would not think of giving food.

There seems to be evidence accumulating in the literature from both medical and surgical sources that the method of feeding is as good, if not better, than the starvation regimen. That was first pointed out by Meulengracht in Sweden, whose figures Dr. Holman quoted as the best which have been published.

STUDENT: I would like to ask Dr. Wheeler how he determines which cases are about to perforate or penetrate?

DR. WHEELER: Such a case might be one with a history of unusually severe and persistent pain, particularly marked tenderness on abdominal palpation, undue fever or leukocytosis, or the finding of penetration in recent roentgenologic studies of the gastrointestinal tract. In addition, of course, there are the patients who present the findings of frank perforation, such as boardlike rigidity of the abdomen.

DR. ANDRUS: I know of no field in which there is legitimate ground for such radical differences of opinion as in the management of the bleeding ulcer, and I must confess to changing my own opinion from time to time, as I think we are all apt to do, on the basis of spectacular cases.

I personally feel we probably should feed our bleeding ulcer cases more than we do. On the other hand, there are reasons for concluding that, in some cases at least, feeding may not only make the patient worse, but may also tend to hide some complication.

I believe also that more patients with excessive bleeding are admitted to the surgical service than are admitted on medicine. It is a terrifying picture. In an overwhelming proportion of those cases which bleed excessively, the ulcer is on the posterior surface of the duodenum and has eroded into a main branch of the pancreaticoduodenal artery or into the artery itself. At postmortem we see a vessel with an opening which may be 2 or 3 millimeters across and which was plugged temporarily by a clot. I cannot see how anything short of mechanical ligation of that vessel, either with or without resection, can be sure of stopping the hemorrhage. Of course many of these patients come in nearly exsanguinated and are very poor operative risks.

There are many aspects of the surgical treatment of this condition which we could consider, but this question of the handling of bleeding ulcers is so important that perhaps we may confine our discussion for the time being to that.

Will anyone else comment further on this point?

DR. REID R. HEFFNER: Last spring at one of the gastro-enterological meetings, several papers were read on the subject of feeding the bleeding ulcer patient. The consensus of opinion was that it makes no difference whether the patient is fed or not while bleeding, in so far as mortality is concerned, but the authors were unanimous in the opinion that the patients who were fed during the course of their hemorrhage felt better and apparently recovered more quickly.

On the other hand, Dr. T. Grier Miller, of Philadelphia, recently gave some interesting statistics relative to bleeding ulcer. He collected from the literature 5,843 cases treated according to the starvation regimen and morphine, the mortality from which was 8.7 per cent, and in some series it was as high as 25 per cent. In the Scandinavian countries the mortality on the starvation regimen varies from 7 to 10 per cent, and even the most minor hemorrhage as a rule is hospitalized. Now, when Miller examined 1,400 reported cases which were fed during the course of their bleeding the mortality was only 3 per cent. Meulengracht lists his mortality at approximately 2 per cent. Miller cites 31 cases of his own, which were fed, with only one death; at autopsy perforation in addition to hemorrhage was found. He concludes that the mortality is only about 3 per cent when the patient is fed, and, further, raises the question whether it is ever wise to oper-

ate during the course of hemorrhage when the mortality with feeding is so low.

DR. KIRBY A. MARTIN: There are few clinical matters with which we are confronted that present as many variables as the subject under discussion. The questions of when and what to feed a patient who is bleeding from a peptic ulcer have always been considered of the utmost importance.

On this subject two schools of thought have arisen. The older one advises complete fasting, and the more recent one advises small, frequent feedings of a bland diet. Personally, I feel that neither is of prime importance or has much to do with the eventual outcome of the patient with a bleeding ulcer.

When we are faced with this problem in the gastrointestinal clinic, we try to determine the relative value of the patient's feeding habits. If these are suboptimal, as is frequently the case, we feel it advisable to give food supplemented with vitamins. Each case must be judged on its own merits.

With regard to statistical data, the figures for mortality of bleeding ulcer vary in different clinics from 3 per cent to 30 per cent. Let me point out what I believe to be the chief discrepancy in these data. There is nothing to convince one that a bleeding ulcer in Denmark is different from one in South America or the United States, but where these data are gathered, in relation to a community, is the principal difference. First, let us take for example the outpatient department of the New York Hospital. There we see a large number of ulcer patients who bleed, and it will be found that the percentage of active ulcers that bleed is very high indeed, provided one takes the trouble to do frequent stool examinations for occult blood. From this department we send only an occasional patient into the hospital. During the past five years, so far as I know, our mortality rate for the ambulatory patients who bleed has been zero.

Second, on the medical service we find patients who are bleeding, and the clinician feels a little safer by having sent them into the hospital. These patients usually do very well. Third, on the surgical service we find patients who have been transferred from medicine and who have bled severely or long, together with patients who have been admitted from the accident ward where the bleeding is usually dramatic, either as to the speed or the total amount. It is easy to see that the data may vary depending on the entrance to this hospital at which the facts are gathered.

The best arguments, to my knowledge, that have been waged against the Meulengracht figures derive from following this same line of thought. The hospital where Meulengracht worked was State subsidized, making it possible

to hospitalize any patient regardless of the degree of bleeding.

Treatment lies in three directions: preventive, of which we know little; medical, that is, rest, with or without food; and surgical, or ligation of the vessel. The last two are far from ideal. The crux of the problem lies in the size and elasticity of the vessel eroded, and unfortunately the diagnostic means available at present give us little information on this point.

DR. GOLD: Are there no remarks about drugs to control bleeding?

DR. ANDRUS: That is an interesting point. Will anyone comment on that?

DR. HEFFNER: Various styptics by mouth have been tried in bleeding ulcer and discarded. Rarely when the treatment of gastric hemorrhage arises the use of drugs to control bleeding is considered. However, I believe we should mention oxalic acid, since a few reports have occurred recently on its use in cases of this type. In 1939, Steinberg and Brown found that prepared extracts from certain plants accelerated markedly and rapidly the rate of coagulation of the blood; the active substance was identified as oxalic acid. Schuman used a preparation called Koagamin, the oxalic acid content of which is 1 mg. per cc., parenterally in various types of bleeding, including hemorrhage from peptic ulcer, and he reports gratifying results. Jackson, of Madison, Wisconsin, also reported on its use with apparent success in a number of bleeding ulcers. My own experience with Koagamin is limited to one case and, for this reason, I am unable to draw any conclusions regarding the merits of the drug. From reports, it is apparently nontoxic and does shorten the coagulation time of the blood, even in hemophiliacs.

DR. SYDNEY WEINTRAUB: When a patient has recovered from a severe hemorrhage, and then after remaining symptom-free for several years has a recurrence of the hemorrhage, should he be treated medically or should surgical treatment be instituted? Should he be treated differently in the second than in the first episode of bleeding?

DR. ANDRUS: I think Dr. Holman has some figures which bear on that point.

DR. HOLMAN: We found that if a patient has bled once, he is more apt to bleed a second time than a patient who has never bled. We also found that patients who have bled on two occasions are apt to bleed a third time. Keefer and Jordan report that 70 per cent of their patients had a third hemorrhage. Our percentage is about 45 per cent.

Strangely enough, the mortality of these patients does not vary directly with the number of times they bleed, that is, if one considers each single bleeding individually. Of course, the more

times a patient bleeds, the more opportunity he has to die, but for any single episode of bleeding, the person who is bleeding for the fourth time is no more apt to die than the person bleeding for the first time. As a matter of fact, in our series the mortality was a little higher in the patients who bleed for the first time.

DR. WHEELER: What is the difference in mortality in surgical intervention when a patient with bleeding ulcer is admitted with a hemoglobin of 70 per cent and when he comes in with a hemoglobin of 30 per cent? When the medical man calls the surgeon to see the patient with serious bleeding from ulcer, the surgeon may say that this patient has bled so much that he is no longer a risk suitable for operation.

DR. ANDRUS: There is a great difference in operating on a patient with a hemoglobin of 70 per cent and in operating on one with a hemoglobin of 30 per cent. I should say the mortality—and this is a guess—will be at least five or six times as high when the hemoglobin is 30 per cent as when it is 70 per cent. Even when by continuous transfusion it may be possible at least temporarily to boost the hemoglobin, this will still be true.

DR. WHEELER: Does it not automatically follow that a certain percentage of these patients with serious hemorrhage are excluded from the probable benefits of surgery due to the fact that they are seen at a time when operation is no longer feasible because the hemoglobin has fallen to 20 or 30 per cent?

DR. ANDRUS: Let us not say excluded, but the risk is terribly high.

DR. JOHN DEITRICK: It seems to me that it is not the hemoglobin level which is important, but the speed at which the patient bleeds. A patient whose hemoglobin level is low but who is bleeding very slowly is much better off than one who has a high hemoglobin level but who is bleeding very rapidly.

DR. ANDRUS: That is of course true. I was referring to the patient who had been under treatment for a while and during that treatment began to bleed. I did not mean the sudden acute hemorrhage.

DR. DEITRICK: It has been said that if a patient is allowed to bleed for 72 hours his chances of recovery are poor. I believe that during this period he could be maintained in fairly good condition if we followed the patient closely and maintained an adequate hemoglobin level and adequate circulation. In this way, if after two or three days the patient continued to have bloody stools, and operation were ultimately indicated, we could probably reduce the surgical mortality. The clinician cannot wait until so much blood has been lost that severe anoxemia of the tissues

is present. At that point transfusion will not bring about recovery of the circulation, and the patient is a bad operative risk. If he is maintained in good condition by being watched every hour, not once a day, the operative mortality could probably be lowered.

DR. ANDRUS: I am sure that our surgeons are willing to operate on most of the patients you are able to keep in shape, but it is not just a question of keeping them in shape, and it is not just a matter of anoxemia. It is a matter of this hole in the artery. Time after time we see patients transfused either repeatedly with small amounts of blood or slowly with large amounts, in whom you might just as well have poured the blood down the sink so far as raising the hemoglobin is concerned. The opening in the artery is so big that it must be closed, and in the meantime any kind of intravenous therapy simply promotes further bleeding.

DR. DEITRICK: That is true. I recall a young man in whom, in spite of intravenous fluids and transfusions, the condition became so bad that we could not operate, and at autopsy he had a huge, indurated ulcer which had eroded into a large artery.

DR. McKEEN CATTELL: In relation to these statistics, I am not clear as to whether the mortality from surgical operation was influenced by the fact that it was preceded by unsuccessful conservative treatment, and therefore represents a selection of the more severe cases.

DR. ANDRUS: I think we have not gathered a sufficiently large group of cases to be able to answer that question.

DR. CATTELL: Are they at a disadvantage though for having had a period of conservative treatment?

DR. ANDRUS: I do not think we know.

DR. HOLMAN: There are some figures which show quite conclusively that the longer one waits and the longer the patient bleeds, the higher the operative mortality will be.

Finsterer, for instance, divided his patients into two groups: those operated on within forty-eight hours after the onset of bleeding, and those allowed to bleed over a period of days. The mortality for the immediate operation was 5 per cent in comparison with 35 per cent in the group of patients who had bled for some time. Christianson, who collected a large series of cases, also found that the mortality increased as the duration of bleeding increased. That applied to both medically and surgically treated patients. Thus there is considerable evidence to show that continued bleeding bears a direct relation to mortality.

DR. CATTELL: It would appear that the worst cases are automatically selected for surgical treatment.

DR. HOLMAN: Yes, that is usually the case.

DR. CATTELL: In that case we do not have a valid basis for evaluating the relative effectiveness of conservative and surgical treatment.

DR. ANDRUS: It is obvious from this discussion and from any discussion one may read in the literature with regard to bleeding peptic ulcer, that standardization of criteria is essential if statistics are to mean anything. We might well strive in this hospital to establish some criteria by which we can classify the cases on the basis of hemoglobin level, duration of bleeding, previous hemorrhage, age, etc., so that the results obtained by various methods of treatment can be compared. Otherwise, despite the large number of cases collected, no definite conclusions can be drawn.

There are a number of other aspects of the management of the bleeding ulcer. One I should like to mention is the question of x-ray examination in patients who have a fairly brisk hemorrhage.

If surgery is elected in a bleeding case, unless the patient is in extremely poor condition, he should be fluoroscoped before operation in order to locate the ulcer. In this way a mistake in diagnosis could occasionally be avoided, for instance, in the patient who has esophageal varices instead of ulcer. I, myself, have had the embarrassing experience of operating on a patient thought to have an ulcer which had eroded into the pancreaticoduodenal artery, and then of having the patient die 48 hours later from hemorrhage from an ulcer high up on the lesser curvature which I did not see.

Would you care to comment, Dr. Weintraub?

DR. WEINTRAUB: In the past we were very conservative in the handling of bleeding patients and would not submit them to a radiographic examination until about two weeks after the hemorrhage had stopped. Now that we are feeding these patients, there is no objection to the giving of barium which is really soothing to the ulcer. The fluoroscopic examination can be done in the prone and supine positions without manipulation of the abdomen. Such a procedure will not jeopardize the patient.

DR. HEFFNER: On x-ray examination are you not more liable to miss the ulcer when it is bleeding than when it is not bleeding? Is that not your experience?

DR. WEINTRAUB: In about 50 per cent of the ulcer cases with hemorrhage, we cannot find any definite x-ray evidence of the cause of bleeding. Of course in the case of bleeding from an acute ulcer in which there is only superficial erosion, the ulcer cannot be demonstrated by x-ray.

DR. ANDRUS: Another aspect is the importance of environmental factors in these patients.

I am sure that the surgeons, thinking of their postoperative results, appreciate this quite as much as do the internists in the medical treatment of the cases. We know, for example, that in certain types of patients a gastro-enterostomy, which does not lower the acidity as much as do some other types of operation, is much more apt to be followed by marginal ulcer or jejunal ulcer than in other types of patients. Those factors have to be taken into consideration even in deciding upon the type of operation to be performed in a given case.

DR. HARRY GOLD: Have you an idea as to what proportion of the patients with bleeding ulcer leave the hospital without having had a transfusion?

DR. ANDRUS: I know of no statistics on that point.

DR. GOLD: Do you think it is high?

DR. ANDRUS: It is extremely low. This is based partly on the fact brought out by Dr. Martin that only the relatively severe cases of bleeding are hospitalized here.

Summary

DR. JANET TRAVELL: The surgical management of peptic ulcer comprises essentially the treatment of its complications: hemorrhage, penetration, free and subacute perforation, obstruction, and malignant degeneration.

Malignant degeneration of ulcer is probably not common. In making a differential diagnosis between ulcer and cancer it is helpful to remember that a lesion involving the duodenum is almost never malignant, whereas gastric lesions away from the lesser curvature are almost always cancer, especially when located near the pylorus.

The trend in choice of operative procedures at the present time is toward gastric resection. After perforation, however, the simplest procedure, that is, plication of the ulcer, is usually preferable. It has been demonstrated that gastric acidity is not materially influenced by gastric resection providing that only the antrum is removed, whereas, if the resection is extended upward beyond the re-entrant angle on the lesser curvature, postoperative gastric acidity is greatly reduced in the vast majority of cases.

The most controversial aspect of this subject deals with the management of the bleeding ulcer, in particular, as to when surgery is indicated, what the specific indications for surgical interference are, whether a regimen of feeding or starvation should be instituted, and how to interpret the mortality statistics for the results of medical as compared with surgical treatment of this complication. The difficulty in evaluating the results derives chiefly from the lack of standard criteria for the classification of such cases. Both medical and surgical men agree that when the ulcer has eroded into a large artery, usually the pancreaticoduodenal, conservative methods of treatment will fail unless the opening in the artery is closed surgically. The problem lies in knowing when such a situation exists. The clearest indications for surgery seem to be persistence or recurrence of bleeding, or the appearance of bleeding while the patient is in the hospital on a conservative plan of treatment. It is also agreed that a regimen of limited feeding probably does no harm and may prove beneficial in the bleeding ulcer patient. It is noteworthy that drugs are of little avail in the control of such bleeding.

Fluoroscopy should be carried out prior to operation in order, if possible, to locate the bleeding point.

TUBERCULOSIS AND HEALTH ASSOCIATION TO HOLD LUNCHEON

Dr. J. Burns Amberson, Jr., President of the New York Tuberculosis and Health Association, has announced that the Association will hold a luncheon on Wednesday, February 3, 1943, at the Hotel Astor, to which will be invited all those attending the joint Regional Conference on Social Hygiene and the Annual Meeting and Conference on Tuberculosis, being held at the hotel on that day.

Topics to be discussed at the conference on tuberculosis, which is sponsored by the Tuberculosis Sanatorium Conference of Metropolitan New York, include: "Case Finding in Industry"; "Nursing Attendants in the Tuberculosis Hospital"; "The Tuberculosis War Experience in Great Britain"; "The Examination for Tuberculosis of Teachers and School Personnel: Amendment to the New York City Sanitary Code"; and "Registrants Rejected for Tuberculosis by Selective Service." Dr. George Foster Herben, chairman of the Tuberculosis Sanatorium Conference of Metropolitan New York, will preside at the session, which begins at 9:30 A.M.

There will be six separate sessions on "Social Hygiene," with three to be held in the morning from 10:00 A.M. to 12:15 o'clock and three in the afternoon beginning at 3:15 o'clock. "Results of Premarital and Prenatal Examination for Syphilis" will be reported and discussed at one of the morning sessions, while "Public Health Nurses and Social Workers in Relation to National Defense" and "Wartime Venereal Disease Control in the Metropolitan Area—What Official Agencies Are Doing in Social Hygiene" will be the subjects at the others.

"Experimental Methods in the Treatment of Syphilis," "Social Casualties of the War—Current Problems in Delinquency," and "The Adolescent in Wartime" are the topics to be discussed at the afternoon sessions.

Special Article

INDUSTRIAL HYGIENE

Medical Service Plans Outlined for Larger Industrial Plants of State

ADELAIDE ROSS SMITH, M.D., New York City

(From the New York State Department of Labor, Division of Industrial Hygiene)

EDITOR'S NOTE: This article is the first in a series of three articles on this subject appearing in *The Industrial Bulletin*.

FIRST-AID equipment and service in the small industrial plant have already been discussed in the December, 1941, issue of *The Industrial Bulletin* (page 360). The present article deals with medical service in plants large enough to provide a medical program of broader scope.

In plants large enough to provide more than a simple first-aid kit, all manner of variations in medical services are found, depending upon the number of employees, the type of industry, and the intended scope of the medical program.

According to the American College of Surgeons,¹ an adequate industrial medical service for larger establishments should include the following features:

1. A definitely organized plan for the medical service.

2. A definitely designated staff of qualified physicians and/or surgeons, nurses, and attendants.

3. Adequate emergency, dispensary, and hospital facilities.

4. Pre-employment and periodic physical examinations—to be made only by qualified medical examiners.*

5. Efficient care of all industrial injuries and occupational diseases.

6. First-aid treatment and advice for employees suffering from nonindustrial injuries and illnesses while on duty. For further professional care such employees should be referred to their family physician.

7. Education of the employee in accident prevention and personal hygiene.

8. Elimination or control of all health hazards.

9. Adequate medical records, accessibly filed in the medical department under responsible medical supervision.

10. Supervision of plant sanitation and all health measures for employees by the physician or surgeon in charge.

11. An ethical and cooperative relationship with the family physician.

12. The use of approved hospitals.

Although such a program may seem elaborate and suitable only for very large establishments, an analysis of these functions will show that the basic elements can actually be carried out by a relatively small unit composed, possibly, of only a nurse and a part-time physician, providing that the service is intelligently planned and is executed with interest and attention to detail.

Whether the staff comprises 2 or 20, certain fundamental principles are applicable to all medical "setups." These will be considered under the categories of (1) the medical plant, (2) the medical personnel, and (3) the medical program.

1. The Medical Plant

LOCATION

In considering where to locate the medical department and whether it is to consist of one room or many, the following requirements should be met:

1. *It should have access to good natural light and ventilation.* Not only is natural light necessary for the examining physician, but also it produces a better psychological impression.

2. *There should be freedom from noise and vibration.* Aside from the anomaly of noise and tumult in connection with medical services, the use of the stethoscope is seriously handicapped if surroundings are not quiet.

3. *It should be located in a place of the greatest accessibility to the greatest number.* Many a minor cut has developed a complicating infection because, at the moment of its occurrence, it seemed too much trouble to go all the way to the dispensary.

4. It is also desirable that the medical unit be situated near existing toilet facilities, unless such facilities are to be included in it.

5. Allowance for expansion should also be made, especially if the unit is small. As the

* These should be primarily for placement purposes.

benefits of medical service become evident, it is more than likely that additional space will be needed to permit growth.

APPEARANCE AND ATMOSPHERE

Whatever its size, the quarters occupied by the medical department should be painted in light colors and kept scrupulously clean and shining. Appearance is of great importance in producing within the patient the desired favorable and cooperative psychological reaction to medical care. The physical temperature should be comfortably warm in cold weather and the personal atmosphere one of friendliness and interest.

SIZE AND ARRANGEMENT

The One-Room Dispensary.—The next development in medical facilities after the first-aid kit is the one-room first-aid room, or dispensary, which must need answer all purposes. While such a room is a great improvement over the isolated first-aid kit, it should be realized that it does not offer the most satisfactory working arrangement. If possible, a graduate nurse should be in charge of the dispensary, even if only on a part-time basis. A thin partition or screen is useful in dividing the room into two parts, a waiting room and a treatment room.

Equipment.—This will vary with the size and needs of the particular plant, but it should include at least the items previously listed for the first-aid kit and supplementary material (see *The Industrial Bulletin*, December, 1941) as well as the following:

Basin with running hot and cold water, floor lamp, instrument cabinet, linen and blankets, one or two beds or cots, scales, small sterilizer, telephone, treatment table.

Small office and surgical equipment, such as basins, pitcher, rubber gloves (sterile), scissors, tweezers, forceps, hot-water bottle, ice bag, etc., must also be supplied.

Special equipment may be needed in some plants for special conditions. For example, for the resuscitation of workers exposed to asphyxiant gases, one should have available an inhalator with a tank of 7 per cent carbon dioxide and 93 per cent oxygen.

The Three-Room Dispensary with Rest Rooms.—A more satisfactory arrangement than the one-room dispensary is the three-room unit, consisting of a waiting room, a treatment room, and a room for consultation or for physical examinations, to which, when there are many women employees, a rest room may be added. Other rooms for special purposes may be arranged later to suit the needs and size of the company.

The Waiting Room.—This need not be large if the return visits are distributed throughout the

day so as to prevent congestion. Arrangements should be made for the separation of men and women, and injured workmen should be segregated, so far as possible, from those waiting for physical examinations.

The waiting room should be furnished with suitable seating accommodations for the number expected, with desk and chair for the nurse, and—very important—with filing cabinets for records.

The Examination Room.—The examining room requires comparatively little in the way of equipment and can be quite small. Good daylight is desirable, although this is not absolutely necessary. Its furniture should consist of a desk and chair for the examining physician, a revolving stool, and an examining table.

Aside from this, the only other equipment is that necessary for examinations, much of which may by preference be supplied, or at least chosen, by the physician himself. The following items are suggested: dynamometer, eye chart, finger cots, flesh pencil, head mirror and light, hemoglobinometer, otoscope, percussion hammer, scales,* sphygmomanometer, spot light, stethoscope, thermometer (in sterilizing solution), tongue depressors, tuning fork, Wassermann tubes.

The Treatment Room.—The guiding principle in deciding upon the equipment of the treatment room should be to remember that its purpose is primarily for the treatment of minor injuries. Employees with major injuries should be removed without delay to nearby hospitals. Occasionally, in isolated localities, of course, the industrial establishment must maintain its own hospital, but this situation is exceptional and is not within the scope of the present article.

In general the following recommendations are made for the surgical treatment room:

Size: It should be large enough to treat more than one worker at a time, and when the volume of work is sufficient, each type of injury, such as hand, leg, eye injuries, etc., should have its special place and facilities.

Equipment: It should contain the following furniture: Desk to record all treatments, flat-top examining and operating table for cases requiring the recumbent position, separate eye treatment table with its own solutions and instruments, suitable arm- and leg-rest chairs adjacent to treatment tables equipped with the necessary supplies and instruments.

The following instruments and supplies are recommended by the Council on Industrial Health of the American Medical Association:²

* This item may, if convenient, be placed, in the waiting room where the nurse, to save time, can record height and weight before the physical examination.

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tacts with the plant are limited to emergencies. Under such a plan, he has no opportunity to become sufficiently acquainted with the actual working conditions of the plant, to be able to develop a constructive, preventive health program, or be given responsibility for health maintenance.

THE NURSE

Not less than the doctor, the industrial nurse must be an exceptional individual. She should be, of course, well trained—a woman with executive ability, keen interest in preventive work, and considerable tact; a woman who is not afraid of responsibility, who enjoys association with people, and knows how to get on with them.

There is probably no field of nursing activity which is broader in its demands or more constructive in its activities than that of industrial nursing when the policy of the management is favorable to a far-sighted program. When it is not, the nurse and physician together with patience and persistence should try to convert the management to a broader point of view. This can often be accomplished by a demonstration with a single limited problem.

Qualifications.—The National Organization for Public Health Nursing,³ an authority on standards of nursing education and training, has formulated the following qualifications for the industrial nurse:

I. For the nurse in an industry which provides supervision by a qualified nurse supervisor:

(A) High-school graduation or its educational equivalent is essential. More advanced education on a college level is desirable. Ability to use the typewriter and perform other clerical procedures is helpful to the nurse, especially in smaller industries where clerical assistance is limited.

(B) Fundamental nursing education. The following are essential:

Graduation from a school of nursing accredited by the State Board of Nurse Examiners and connected with a hospital having a daily average of 100 patients, or a minimum of 50 patients with one or more affiliations affording supplementary preparation.

(a) Instruction and experience in the care of men, women, and children, including patients with communicable disease.

(b) Thorough instruction and experience in surgical nursing, including operating room and first aid.

Instruction and experience are desirable in the following: (1) outpatient department, especially in the emergency rooms; (2) psychiatric nursing.

(c) State registration.

II. For the nurse in an industry working without the guidance of a nursing supervisor:

This nurse should be able to plan the nursing program under the general direction of the medical officer and should have a working knowledge of the principles of teaching, social case work, community organization and resources, public health administration, industrial relations, personnel administration, industrial hazards, nutrition, communicable disease, mental hygiene, and personal hygiene, as they affect the individual and his family.

(A) All the preparation listed under I and in addition:

1. At least one year of experience under qualified nursing supervision in a public health nursing service in which practice in the application of technic can be secured.

2. An academic year of study in public health nursing in one of the colleges or universities whose program is approved by the National Organization of Public Health Nurses:

(a) where courses in industrial hygiene and safety are available.

(b) where courses in principles of public health nursing, mental hygiene, social work, preventive medicine, and allied subjects are made applicable to nursing in industry.

(c) where field work includes some experience in industry.

3. Supplementary experience and instruction in operating-room and first-aid nursing, if thorough preparation was not included in the basic nursing education period.

III. For the nurse in a supervisory position: All the preparation under I and II, and in addition:

Successful experience in industrial nursing, part of which is preferably in the type of industrial work in which the nurse is to act as supervisor.

The above, of course, represents the ideal in qualifications. Many nurses in industry unquestionably carry on their work efficiently without extensive additional training, especially when endowed with energy and an interest in preventive medicine. The desirability, however, for the prospective industrial nurse of some special experience in the public health field and some knowledge of the principles of industrial hygiene will be apparent from a consideration of her duties.

Duties.—The following is a list of the duties and activities which should be expected of the industrial nurse:*

* Largely taken from an outline on the subject in *Public Health Nursing* for January, 1942.

Adhesive plaster, assorted bandages, assorted catheters, assorted gauze dressings, assorted hypodermic needles, assorted jars and basins, assorted splints, assorted surgeons' needles, assorted sutures, bandage scissors, cotton, crutches, hand magnifying glass, head mirror, hemostatic forceps, hot-water bottle, ice cap, iris scissors, Loupe, needle holder, safety razor and blades, scalpels, splinter forceps, surgical scissors, syringes, test tubes, tissue forceps, tourniquet.

In the case of both treatment and examination rooms, it is convenient and time-saving to arrange small dressing booths which open into the waiting room on one side and the examination or treatment room on the other. In planning the dispensary, the arrangement of suitable storage space for supplies must not be forgotten.

Additional Facilities in a Large-Scale Medical Unit.—Many additional facilities may be furnished in large industrial plants when the medical department extends its scope beyond physical examination and first-aid treatments. Particularly useful are the following:

A *clinical laboratory* for blood, urine, and serologic examinations is comparatively simple to set up and economical of both time and money, where these tests are included as part of the physical examination.

An *x-ray department* may be very valuable in plants where fractures are not uncommon, or in industries having a silicosis or other dust hazard.

A *physiotherapy department* where injured workmen can receive suitable treatment along these lines can render useful service in shortening the period of disability.

A *department for dental prophylaxis* plays an important part in a preventive health program by forestalling unnecessary disability due to dental conditions.

An *eye department* for complete examination of the eyes, particularly where work may entail special eye strain.

2. Medical Personnel

THE PHYSICIAN

The demands of factory medical service call for certain special qualifications in the physician who is to undertake them, apart from good training and clinical ability. Perhaps the most important of these is what might be described as the "public health point of view." His interest must be in *prevention* fully as much as in *treatment*. He has not only individuals but also, in a true sense, a community under his care and his concern must extend to all circumstances and situations within the community which touch upon its health.

Qualifications for Industrial Work.—The detailed kinds of knowledge, experience, and aptitudes which should be his have been drawn up by the American College of Surgeons¹ as follows:

1. He should be a graduate of an accredited medical school and licensed to practice in the State or province.

2. He should have at least one year's internship in an accredited hospital.

3. He should have some experience in general practice either prior or supplemental to his duties at the plant.

4. He should have a general knowledge of industrial relations, including employment methods and problems, transportation, housing, recreation, educational facilities and methods, and employees' benefit plans.

5. He should be qualified to determine by examination of employees their physical and mental fitness for work.

6. He should have a knowledge of the ingredients and of the toxic or disease-producing properties of all the materials and processes used in the industrial organization which he serves.

7. He should have a knowledge of sanitation, of working conditions, of accident and occupational disease prevention methods, and of preventive health measures in general.

8. He should have a knowledge of the diagnosis and treatment of occupational diseases.

9. He should be competent in the diagnosis and handling of all traumatic lesions which he undertakes to treat.

10. He should be versed in procedure for follow-up and rehabilitation.

11. He should have a knowledge of the workmen's compensation laws.

12. He should have knowledge of an efficient medical record system and of statistical methods.

13. He should have an unbiased viewpoint and a confidence-inspiring personality.

14. He should realize that his first duty should always be to the workmen whom he examines or treats.

15. He should like people.

Time Spent at Plant.—Whether or not the physician spends full time at the plant will depend upon the size and complexity of the medical department. A doctor who spends only part of his time in the plant either by making visits each day or visits at regular times during the week can exercise satisfactory supervision of the medical department providing he has a competent nurse in charge during his absence. This is the most satisfactory setup for the smaller plant.

It is not satisfactory to put the physician on a call basis only, since this means that his con-

THE RISING CURVE OF PEPTIC ULCER IN WAR

"Peptic Ulcer ranks high as a cause of disability for military service. It . . . leads all other digestive diseases as a cause for discharge from the Regular Army."

Kantor, J. L.: Digestive Disease and Military Service, Jnl. A. M. A., Sept. 26, 1942.

THE increased incidence of peptic ulcer among the armed forces, defense workers and civilians today confronts medicine as a major problem.

Of the various types of therapy used to control this problem none has proved itself more valuable than CREAMALIN,

brand of aluminum hydroxide gel.

CREAMALIN, the first aluminum hydroxide gel to be made available to physicians, was also the first to be Council-accepted. CREAMALIN contains approximately 5.5% aluminum hydroxide.

Therapeutic Effects of CREAMALIN

- Pronounced antacid action of 12 times its volume of N/10 HCl in less than 30 minutes (Toepfer's reagent)
- Prolonged action in contrast to fleeting effect of alkalis
- Non-alkaline; non-absorbable; non-toxic
- No acid rebound; no danger of alkalosis
- Prompt and continuous pain relief in uncomplicated cases
- Rapid healing when used with regular ulcer regimen
- Mildly astringent; may reduce digestive action, thus favor clot formation
- Demulcent; gelatinous consistency affords protective coating to ulcer



Modern non-alkaline therapy for peptic ulcer and gastric hyperacidity



ALBA PHARMACEUTICAL COMPANY, INC.,

74 LAIGHT STREET
NEW YORK, N. Y.

1. Management of Dispensary.—This includes responsibility for the running of the medical department and supervision of equipment, supplies, procedures, and records.

2. First Aid.—The industrial nurse should be responsible for first-aid treatment in the dispensary in the absence of the plant physician. At such times she should act on standing orders given by the plant physician. She should also supervise first-aid kits and supplies throughout the plant and may well take on the training of employees in first-aid work.

3. Assistance to Plant Physician.—The amount of aid rendered by the nurse to the plant physician will largely depend upon the wishes of the latter. The nurse will naturally assist the physician with treatments or dressings when necessary. She can facilitate the making of pre-employment and periodic examinations by undertaking, subject to the physician's approval, such duties as history taking, vision and hearing tests, examinations of blood and urine, measurement of blood pressure, and assistance in the making of x-ray examinations.

4. Follow-up of Abnormal Conditions.—Much of the benefit of pre-employment or periodic physical examinations is lost if the correctable physical defects uncovered by such examinations are not corrected as soon as possible. The industrial nurse can play a vital part in the medical program by following up individuals to find out whether defects have received attention by the family physician and if not, striving to bring about correction by persuasion, education, and assistance in referring the individual in question to the proper physician, dentist, or clinic. She is also in a uniquely favorable position to recognize evidence of the effects of any special occupational disease hazards. For example, when a worker in a lead department comes to the plant dispensary for first-aid treatment, a nurse, alert to the possible hazard, may by appropriate questioning discover early evidence of lead poisoning. The same approach pertains to exposure to silica dust, volatile solvents, or other injurious substances.

5. Health and Safety Education.—If she is interested, the plant nurse in her daily contacts with industrial workers can accomplish more toward their education in matters of health and safety than can often be achieved by more formal efforts. She can, moreover, play a valuable part in an educational program by giving talks on health, distributing leaflets, and arranging for movies or other health demonstrations.

6. Supervision of Plant Sanitation.—Supervision of plant sanitation, general cleanliness and good housekeeping, proper maintenance

of toilet and washing facilities, provision of drinking water, etc., falls properly and naturally within the province of the industrial nurse. She should be given the duty of making routine plant inspections and reporting infringements of proper sanitation to the management for correction.

7. Safety Program Participation.—A well-developed safety program includes regular conferences of foremen, safety personnel, and representatives of the plant management to discuss causes and prevention of accidents. The industrial nurse can make a useful contribution to such conferences through her knowledge, gained from intimate personal contact in the medical department, of personal factors which might have played a part in accident causation in any given case.

8. Supervision of Plant Lunch Rooms and Nutrition Program.—The graduate nurse has received instruction in nutrition as part of her training. This knowledge can be put to good use in planning menus and in supervising the industrial plant's nutrition program.

9. Coordination of Medical Department with Other Services.—Within the complicated structure of a large industrial plant the activities of the medical department require coordination with other departments and services, especially the safety department, and the personnel and placing department. Such coordination falls naturally within the sphere of activities of the industrial nurse.

Outside the plant as well, she finds a similar role to play in coordinating the work of her medical department with the various social agencies within the community. In this category would lie such duties as referring employees to outside physicians with a letter describing the need for treatment and cooperation with local agencies to secure rehabilitation of sick or injured employees.

10. Record Keeping.—The keeping of good records is essential to the efficiency of the industrial dispensary and the industrial nurse is the one who must take full responsibility for them. Not only accident records, which are required for compensation purposes, but also medical records should be kept; the latter including all dispensary visits and reasons for absenteeism as well as records of pre-employment and periodic physical examinations.

11. Visiting Nursing Service.—In addition to the duties described above, industrial nurses, in many large plants, participate in a visiting nursing service. Where such a service has been established, it is usually the practice for a plant nurse to visit every employee who has been

[Continued on page 266]



Adequate Nutrition

AN IMPORTANT FACTOR IN PREVENTIVE MEDICINE

That optimum nutrition is fully as important as adequate public health measures in the prevention of under-par health and morbidity, is now recognized by all authorities; also, that the promotion of good nutrition demands the satisfaction of all the essential nutritional requirements, and not merely an isolated few.

The balanced composition of New Improved Ovaltine gives this delicious food drink wide applicability in the prevention

and correction of nutritional insufficiency. Rich not only in vitamins but also in virtually all other essential nutrients, Ovaltine complements the average diet to bring the intake of nutritional essentials to the optimum level. No resistance by the patient— young or old—is encountered when Ovaltine is prescribed; its delicious taste assures patient co-operation. Physicians are invited to send for samples. The Wander Co., 360 North Michigan Avenue, Chicago, Illinois.

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Three daily servings (1½ oz.) of New Improved Ovaltine provide:

	Dry Ovaltine	Ovaltine with milk*		Dry Ovaltine	Ovaltine with milk*
PROTEIN	6.00 Gm.	31.20 Gm.	COPPER	0.5 mg.	0.5 mg.
CARBOHYDRATE .	30.00 Gm.	66.00 Gm.	VITAMIN A . . .	1500 U.S.P.U.	2953 U.S.P.U.
FAT	3.15 Gm.	31.95 Gm.	VITAMIN D . . .	405 U.S.P.U.	432 U.S.P.U.
CALCIUM	0.25 Gm.	1.05 Gm.	VITAMIN B ₁ . . .	300 U.S.P.U.	432 U.S.P.U.
PHOSPHORUS . .	0.25 Gm.	0.903 Gm.	RIBOFLAVIN . .	0.25 mg.	1.28 mg.
IRON	10.5 mg.	11.9 mg.			

*Each serving made with 8 oz. milk; based on average reported values for milk.

[Continued from page 264]

absent for longer than a given time, usually three days. If this feature is carried out as a true service, and not merely for the purpose of getting information, it will be found helpful in many ways. She can judge whether the physician is needed when he has not been called, or whether his instructions are being properly carried out. When some other disposition of the case is indicated, she can suggest it. If difficult household problems complicate the situation, she can put to use her knowledge of existing social service agencies to help in their solution.

It is possible and often very satisfactory for a plant which is not large enough to maintain its own visiting service to arrange with the

local public health agency for visits to be made to its sick employees. Any scheme of visiting service presupposes that the medical department will be informed daily, from the plant, of absences in the various departments *

References

- 1 Newquist, M N Medical Service in Industry and Workmen's Compensation Laws, American College of Surgeons, 1938
- 2 American Medical Association, Council on Industrial Health Medical Service in Industry, the Industrial Medical Department, J A M A, July 15, 1941
- 3 Editorial Desirable Qualifications of Nurses Appointed to Public Health Nursing Positions in Industry Public Health Nursing, July, 1939

* This article appeared in the October, 1942, issue of *The Industrial Bulletin*. For the other two articles see the December, 1942, and the January, 1943, issues of *The Bulletin*

SOCIAL HYGIENE DAY

Social Hygiene Day will take its battle stations throughout the country as in former years, despite the gasoline and rubber restrictions which are in force this year. Dr. Walter Clarke, Executive Director of the American Social Hygiene Association, in announcing the annual observance scheduled for Wednesday, February 3, 1943, said that this battle on the home front against venereal disease is nationwide and does not depend upon transportation to rally its fighting forces. Community meetings will take place throughout the land, sponsored by local clubs, church groups, and social and health agencies.

Dr. Clarke pointed out that in wartime more than ever the United States must man its battle stations in every city, town, and hamlet in order to stamp out the venereal diseases at their source. Syphilis and gonorrhea are enemies which threaten us at home. They disable our men at the front, but their roots are on the home front. For this reason Social Hygiene Day this year will assume a greater significance than ever before. It will be observed in every community, no matter how small it may be, by discussion of direct action designed to stamp out the two diseases which are as menacing to our armed forces as the bombs of our enemies.

"During the first world war, there were 157,146 more new cases of syphilis and gonorrhea among United States soldiers, sailors, and marines," Dr. Clarke explained, "than there were wounds in battles. Total absences from duty due to this infection kept the equivalent of 20,600 men out of the fighting for a whole year, men trained for their country's service, men upon whom their country counted for its defense.

"In terms of today's hard-held fronts such a loss would mean the equivalent of the personnel required to man five huge aircraft carriers and nine destroyers.

"No axis enemy could be more destructive than this enemy whom we must defeat on health battle fronts within our own country. We do not need to suffer this loss and do not need gas and tires to meet that enemy and to destroy him. We have the scientific weapons to prevent the spread of the venereal diseases. In wartime the principal function of social hygiene organizations everywhere is to persuade every community to use these weapons effectively. Intelligent cooperation among the health and welfare agencies in every city and town will help stamp out venereal disease and thus help our armed forces to bring us victory on the battle fronts."

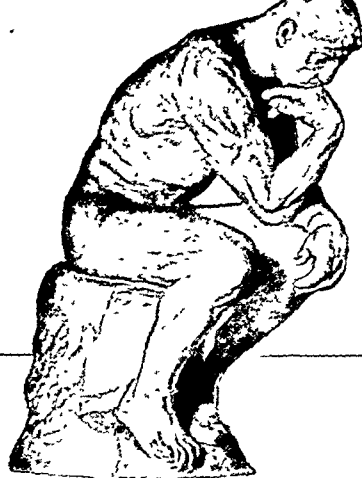
REVERSE ENGLISH

Rapidly expanding Washington war agencies can't get enough stenographers, and, as a result, some rather inexperienced girls are getting jobs. We hear that one of these, working for a gold-branded Navy man, was asked to type five copies of a report to be distributed to other important officials at a conference.

She finished the job, then discovered that her carbon paper had been put in wrong—four copies of the report were typed backwards. But, the young lady wasn't stumped. She sent the copies into the conference with a note:

"These can be read easily by using a mirror."

—*This Week*



Think of **Zymenol** Brewer's Yeast Emulsion as an Aqueous Brewer's Yeast Culture (without live cells)

A TWO-FOLD NATURAL THERAPY FOR

Constipation-Colitis-Diarrhea

WITH ADDED VALUES IN . . .

- Zymenol, a palatable Emulsion, supplies COMPLETE NATURAL VITAMIN B COMPLEX and ENZYMES of AQUEOUS BREWERS YEAST — effective in the hypo- or Hypertonic bowel.

PROCTOLOGY

Zymenol maintains a soft, less toxic stool which alleviates pain of post-operative bowel movement and aids healing. Teaspoon dosage avoids oil seepage infection.

Zymenol Does Not contain any irritant, laxative drugs. No Phenolphthalein, No Cascara or saline purgatives. No artificial bulk or roughage. Sugar Free.

Zymenol's economical TEASPOON dose contains less than 2 cc mineral oil which avoids leakage and cannot affect digestion or vitamin absorption.



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Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., chairman (428 Greenwood Place, Syracuse); George Baehr, M.D.; and Charles D. Post, M.D.

General Medicine

ACOURSE of lectures on general medicine has been planned for the Columbia County Medical Society. Lectures will be given at the Hudson City Hospital, Hudson, New York, at 9:15 p.m. The program is as follows:

March 11 "Management of Acute Cardiovascular Emergencies"

Clarence E. de la Chapelle, professor of clinical medicine, New York University College of Medicine.

March 25 "Newer Chemotherapeutic Methods"

Norman Plummer, M.D., assistant professor of clinical medicine, Cornell University Medical College.

April 8 "Benign and Malignant Neoplasms: Diagnosis, Clinical Effects, and Treatment"
J. Maxwell Chamberlain, M.D., principal thoracic surgeon, Homer Folks Tuberculosis Hospital, Oneonta, New York.

April 22 "Pelvic Tumors Complicating Pregnancy, Labor, and the Puerperium"
Harvey B. Matthews, M.D., clinical professor of obstetrics and gynecology, Long Island College of Medicine.

May 6 "The Physical Examination of the Child: Its Importance in Diagnosis"
Marjorie F. Murray, M.D., The Mary Imogene Bassett Hospital, Cooperstown, New York.

Pediatrics

"PREVENTIVE Pediatrics and the Public Health Examination" was the subject of a single lecture arranged for the Cortland County Medical Society on January 15 at 8:30 p.m. at the Cortland County Hospital in Cortland. The speaker was

Dr. A. C. Silverman, professor of clinical pediatrics, Syracuse University College of Medicine.

The lecture was a cooperative endeavor between the New York State Department of Health and the Medical Society of the State of New York.

SCIENTIFIC EXHIBITS

1943

ANNUAL MEETING

Applications for space for the scientific exhibits should be made directly to

Dr. J. G. Fred Hiss,
505 State Tower Building,
Syracuse, New York,

Chairman of Subcommittee on Scientific Exhibits of the Convention Committee.

The Annual Meeting will be held May 3-6, 1943, Hotel Statler, Buffalo, New York.
The list will be closed on February 15, 1943.

PETER IRVING, M.D., Secretary



Fit FOR WAR WORK

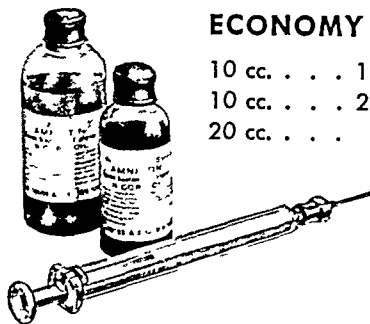
THE DEMANDS of war are bringing an increase in the number of middle-aged women in industry. Efficiency demands that they keep fit—physically and emotionally.

It is estimated that 80 per cent of women in this age group experience menopausal symptoms—some severe and well recognized—others milder and more vague. Clinical investigations show that, in a large percentage of cases, adequate estrogenic therapy will eliminate or greatly relieve these symptoms, and thus enable these women to stay "on the job."

The high clinical effectiveness of Amniotin in relieving the distressing vasomotor symptoms of the menopause has been amply demonstrated by numerous clinical reports published during the past 12 years. The product has likewise proved valuable in treating other conditions related to a deficiency of estrogenic substances.

TWO NEW ADVANTAGES . . . The new economy size vials of Amniotin offer two distinct advantages. They provide a substantial saving over the cost of Amniotin in ampuls and they facilitate use of fractional doses without waste of material.

Differing from estrogenic substances containing or derived from a single crystalline factor, Amniotin is a highly purified, non-crystalline preparation of naturally occurring estrogenic substances derived from pregnant mares' urine. Its estrogenic activity is expressed in terms of the equivalent of international units of estrone. In addition to the economy vial packages and the ampuls (both of which are for intramuscular injection) you can secure Amniotin in capsules for oral administration and in pessaries for intravaginal use.



ECONOMY SIZE VIALS

10 cc. . . .	10,000 I.U. per cc.
10 cc. . . .	20,000 I.U. per cc.
20 cc. . . .	2,000 I.U. per cc.

For literature write Professional Service Dept., E. R. Squibb & Sons, 745 Fifth Ave., New York

Amniotin

A SQUIBB PREPARATION OF ESTROGENIC SUBSTANCES
OBTAINED FROM THE URINE OF PREGNANT MARES

Say you saw it in the NEW YORK STATE JOURNAL OF MEDICINE

Medical News

Sister Kenny to Teach at N.Y.U.

SISTER Elizabeth Kenny will come to New York this month to teach her technic in a course to be given by New York University on a grant from the National Foundation for Infantile Paralysis.

The University said the course will be the most extensive ever undertaken to prepare technicians to administer the Kenny method. It will mark the first time that Sister Kenny has left the University of Minnesota, where she has taught since 1940, to appear on the teaching staff of another institution.

Physicians and physiotherapists interested in her work have gone to her, although courses without the benefit of her personal instruction have been sponsored recently by the Foundation at universities in other parts of the country.

Sister Kenny will be accompanied by Miss Mary Kenny, her thirty-year-old adopted niece and assistant, who is an expert technician.

Although the program at N.Y.U. will be extensive, starting on February 3, there will be provision for only twenty trainees, who will be selected registered physical therapists. However, plans are also under way for intensive one-week courses for physicians and nurses.

Classes for the course will be held at the New York University College of Medicine, 477 First Avenue, and clinical instruction will be given at the Jersey City Medical Center and at other hospitals in the metropolitan area where there are infantile paralysis patients.

Because of the acute shortage of physical therapy technicians, the classes will be held in the late afternoons and evenings so that those taking the course may continue with their regular work while training.

Dr. George G. Deaver, director of the physical therapy curriculum at the N.Y.U. School of Education, will direct the program, for which regular college credits will be given. Instructors, in addition to Sister Kenny, Miss Kenny, and Dr. Deaver, will include Dr. William Bierman, assistant clinical professor of therapeutics at the N.Y.U. College of Medicine, who will be clinical director; Dr. Joseph Pick, assistant professor of anatomy at the college; Miss Ruth F. Bergmann, chief Kenny technician at the Jersey City Medical Center; and a group of prominent physicians, many of them from the Middle West, including Dr. W. Gudakunst, medical director of the National Foundation for Infantile Paralysis.

Dr. Chace New Head of Academy of Medicine

DR. ARTHUR Freeborn Chace, president of the New York Post-Graduate Medical School and Hospital, assumed the office of president of the New York Academy of Medicine on January 7.

Dr. Chace said in his inaugural address that medicine is "on the threshold of solving many riddles, among which it seems safe to place that great enemy, cancer."

In addition to cancer, other major ills medicine is now about to conquer are "such virus diseases as infantile paralysis, the common cold, and the newer form of virus pneumonia," Dr. Chace added.

Dr. Malcolm Goodridge, the outgoing president of the Academy, said that "as a direct result of the war, medicine will face a vastly changed world and it must take the lead in determining just what its position is to be in the new order or else the initiative will surely pass to those less qualified to act."

"Social and economic trends," Dr. Goodridge predicted, "will affect every phase of life."

According to Dr. Chace, life expectancy at birth has been extended by at least ten years through the work of modern science. The problem thereby created, he declared, "is the treatment of the largely increased illnesses associated with old age."

"The development of the specialty of geriatrics is a pressing problem wherein the Academy must forge ahead in its education program, fitting physicians to meet this demand."

"Our biologic, chemical, and physical discoveries have far outrun our social and economic adjustments, and the war demands have completely thrown society out of gear. In no other branch of science as in medicine have its discoveries been so quickly, and at so little cost, put at the disposal of the public; but still it is not enough. In this lies the Academy's opportunity and obligation to educate the medical profession for their proper use and the laity for proper cooperation."

Outlining the program of the Academy for the near future, Dr. Chace said:

"We propose, to scrutinize carefully the proposals and plans for the postwar world that are formulated by responsible and authoritative agencies. We intend to do this so that we may be fully informed and in a position to contribute effectively to such services as we may be ultimately called on to render."

"We must also devote our attention to those various health problems that issue from food and fuel rationing, from the intensification of our industrial efforts, and from the increased participation of women in war work."

"Civilian defense units must be kept up to date. Catastrophe teams must be kept continually on the alert. Plans must be perfected for the emotional and physical rehabilitation of men returning from the war. The refresher courses in medicine must be given with increasing intensity."

County News

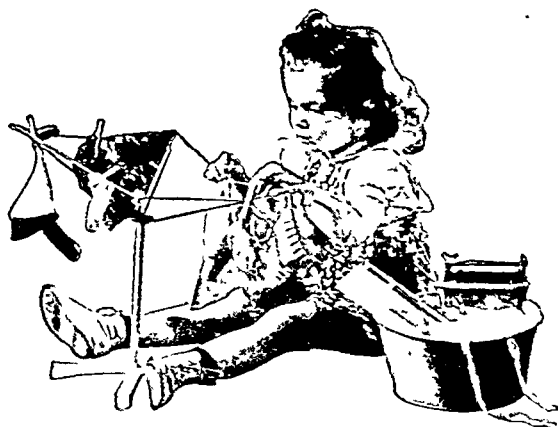
Albany County

Dr. Nicholas P. Teresi has been awarded a fellowship in medicine at the Labey Clinic in Boston.

Dr. Teresi was graduated from Hahnemann Medical College in Philadelphia.

He has been on the medical staffs of the Mt. Morris Sanatorium and the Saratoga County Tuberculosis Hospital. At present, he is on the intern staff of St. Peter's Hospital in Albany. Dr. Teresi

(Continued on page 272)



FOR INFANTS AND CHILDREN

Milk Diffusible Vitamin D Preparation

DRISDOL in Propylene Glycol makes it possible to secure the benefits obtainable from combining vitamin D with the daily milk ration. This preparation is simple, convenient and easy to use, and relatively little is required for prophylaxis and treatment of rickets—only two drops daily.

Drisdol in Propylene Glycol
does not float on milk . . . does not adhere to bottle
does not have a fishy taste . . . does not have a fishy odor

Drisdol in Propylene Glycol—10,000 units per Gram—is available in bottles containing 5 cc. and 50 cc. A special dropper delivering 250 U.S.P. vitamin D units per drop is supplied with each bottle.

DRISDOL IN PROPYLENE GLYCOL

Reg. U. S. Pat Off & Canada

Brand of Crystalline Vitamin D from ergosterol

WINTHROP CHEMICAL COMPANY, INC.

Pharmaceuticals of merit for the physician

NEW YORK, N. Y. • WINDSOR, ONT.



This cherished
symbol of distinguished
service to our Country waves
from the Winthrop flagstaff.

[Continued from page 270]

will assume his new duties at the Lahey Clinic on July 1.*

Bronx County

The regular meeting of the county society was held at Burnside Manor on January 20 at 8:00 P.M.

The program opened with an executive session. Three addresses were given in the scientific session: "Prevention and Nonsurgical Treatment of Pulmonary Suppuration," by Harry Wessler, M.D.; "Surgical Aspects of Pulmonary Suppuration," by Harold Neuhoof, M.D.; and "Roentgen Therapy in Prevention and Treatment of Pulmonary Suppuration," by Solomon Ginsburg, M.D.

Another feature was a scientific exhibit—"Acute Mediastinal Infections—Demonstration of X-Ray Films," by Dr. Neuhoof and Dr. Maurice S. Harte; and "Roentgenologic Aspects of Pulmonary Suppuration," in which the following hospitals were represented: Fordham Hospital, by Dr. Henry Hirsch; Lebanon Hospital, by Dr. Jacob Bower; Lincoln Hospital, by Drs. Charles Gottlieb and Harry Weaver; Montefiore Hospital, by Drs. Solomon Fineman, Jacob Bower, and Irving J. Kane; and Morrisania Hospital, by Dr. Samuel F. Weitzner.

Broome County

A standardized county-wide welfare medical plan has been approved for the Broome County Department of Welfare by the State Department of Social Welfare. The county plan started to operate in January, with Dr. F. M. Dyer as medical consultant for the county on a part-time basis.

First public announcement of the program was made by William C. Hawthorne, Broome County welfare commissioner, in his annual report to the Board of Supervisors.

"We have always felt," he wrote, "that the recipients of medical care should have all necessary attention, but it reached the point where we felt that the amount of care authorized should not be determined by anyone outside the medical profession. With the cooperation of the State Department of Social Welfare, Broome County Medical Society, Broome County Dental Society and County Association of Druggists, the superintendents of hospitals, and other professional groups, Broome County has completed a medical plan which is now in full operation."

Mr. Hawthorne explained that the "medical plan represents a standardized agreement of charges for medical care of Broome welfare clients by doctors, dentists, hospitals, and druggists under uniform procedure."

He explained that the county will operate the plan on a zone basis for medical calls and that the program contemplates no change in over-all medical costs from those of former years. Medical care during the fiscal year which ended October 31, 1942, cost \$55,100.96 for treatment of welfare cases in area hospitals and professional services in hospitals.

The plan is in line with similar plans either already operating or proposed for upstate counties under state department jurisdiction.*

Cayuga County

Dr. Frank L. DeFurio, Auburn physician, has been appointed coroner of Cayuga County to succeed the late Dr. Raymond C. Almy. The appointment was made by Governor Charles Poletti.

Dr. DeFurio will hold office as coroner until December 31, 1943, the incumbent to take over after that date to be decided at the 1943 fall elections.

The duties of the coroner will not be new to Dr. DeFurio, as he served from August, 1937, to January 1, 1938, as successor to the late Dr. A. F. Hogman.*

Jefferson County

Dr. Leandro M. Tocantine, associate professor of medicine at Jefferson Medical College, Philadelphia, was the speaker at the January meeting of the Medical Society of Schenectady County held December 29 at 9 o'clock in the auditorium of the Whitmore Home of Ellis Hospital.

Dr. Tocantine, who is also director of hematology of Jefferson Medical College Hospital, Philadelphia, spoke on "Nutritional and Metabolic Aspects of Disorders of the Blood."*

Kings County

The county society has approved a plan to conduct physical examinations for teen-age high-school students who expect to be called for war service.

The Board of Education has asked that all such youths go to family physicians for an examination. In the event that some have no family physician and cannot pay the usual fee, volunteer physicians will be asked to make the examinations at their offices.

A roster of physicians who have offered to participate in the plan is being prepared by the director of medical activities of the medical society.

Each high school will be given a copy of the roster through the office of the Department of Health Education of the Board of Education. Each student will have an opportunity to select from the roster a physician of his choice.

Each high school will assume the responsibility for the follow-up care of defects discovered in the examinations, either through the aid of the boy's own physician wherever possible, or through co-operation with municipal clinics.

The plan is only for the pre-induction group of high-school students 16 years old and older, for the duration.

Dr. Charles F. McCarty, director of medical activities of the medical society, is receiving registrations of men and women physicians at the headquarters of the society, 1313 Bedford Avenue.*

The regular annual meeting of the Pan-American Medical Association, Brooklyn and Long Island Chapter, was held December 4 at the home of the president, 18 Prospect Park West, Brooklyn.

The following officers were elected: president, Edwin A. Griffin, M.D.; vice-presidents, F. Raymond Surber, M.D., A. W. Martin Marino, M.D., and Milton B. Bergmann, M.D.; secretary, Frank E. Mallon, M.D.; treasurer, Morris W. Henry, M.D.

It was decided to have a symposium on "Sudden Death in Surgical Cases," at a Brooklyn hospital during February.

During the regular monthly meeting of the Brooklyn Urological Society the following officers were elected for 1943:

President, Dr. John J. Bottone; vice-president, Dr. Oscar Schoenemann; secretary-treasurer, Dr. Francis O. Osterhus.

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* Asterisk indicates item is from local newspaper.

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Patients with Long-Standing Ptosis



A

B

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Dr. M. Ruiz Castaneda, official of the Department of Public Health of Mexico, who is visiting in the United States as a guest of the Department of State, spoke on typhus fever at a meeting of the Research Society of the Long Island College of Medicine on January 2.

The entire student body had been invited to hear Dr. Castaneda's lecture. This subject, according to the announcement issued by the college, is of paramount importance in the teaching of military medicine and is one of the phases of tropical medicine being stressed there at the present time.

According to Dr. Wade W. Oliver, professor of bacteriology and head of the Department of Bacteriology of the college, it is of particular value to medical students of the college at this time to have heard Dr. Castaneda speak on his researches, since typhus fever is a disease which is world-wide in distribution and has raged in violent epidemic proportions in the wake of every war fought in Europe during modern times.*

The county society and the Academy of Medicine of Brooklyn held a stated meeting on Tuesday, January 19, at 8:45 p.m. in MacNaughton Auditorium.

The scientific program included "The Role of the County Society in the War" (Inaugural Address), by John J. Gainey, M.D., F.A.C.S., president of the Medical Society of the County of Kings and of the Academy of Medicine of Brooklyn; and "The Use of Malaria in the Treatment of Syphilis," by Arthur W. Grace, M.D., F.A.C.P., professor of dermatology and syphilology, Long Island College of Medicine.

Livingston County

Child health consultations are sponsored by the Livingston County Medical Society throughout the county for the purpose of giving every child between the ages of 6 months and 6 years an opportunity to have a thorough physical examination at least once a year. Children in this age group who are not already being examined by their family physician once a year are invited to attend the consultation.

At the consultation the children are examined by a local physician and have their teeth cleaned by a dental hygienist, and they have the privilege of receiving dental care at a dental clinic.

The aim of the annual physical examination is to encourage parents to have correction made of such conditions as defective tonsils, teeth, hernia, malnutrition, etc., so that the children will be ready to enter school in good health.

From time to time these consultations are held in Caledonia. Parents wishing to take advantage of them may leave their names with Mrs. Harold King, after which an appointment will be given them.*

Madison County

A recent report stressed the part that public health nurses are playing in relieving the serious shortage of physicians and nurses and the overcrowded condition of hospitals in the county. The following paragraph, which gives some interesting figures on this subject, was clipped from the *Hamilton Republican* of December 31:

"Figures indicated that the nurses covered 52,535 miles and spent 10,389 hours on duty during the

year, making some 6,393 visits. Most of these visits were maternity calls, before, during, and after delivery. Children received 1,500 visits for purposes of health supervision; 936 visits were made to give nursing care during other illness; and there were 692 visits to cases and contacts of tuberculosis. At least 3,000 school children in forty-six schools of the county are under the direct supervision of the county nurses."

Nassau County

The effect of the war on doctors of Nassau County and the work doctors are doing on selective service boards were outlined by Dr. Smith A. Combes, former village health officer and now examining officer for the local draft board, at a meeting of the Hempstead Lions Club on December 23.

One hundred and fifty members of the Nassau County Medical Society, comprising about 30 per cent of the total membership, are now in the armed forces, Dr. Combes told the Lions. Most of the doctors in service are under 37 years of age and were formerly the most active general practitioners.*

New York County

Students will be admitted in February for occupational and physical therapy courses at Columbia University in an effort to relieve the shortage of technicians in this field in the Army and Navy. Professor Harry Morgan Ayres, acting director of University Extension, has announced.

The course in physical therapy, instituted last September, calls for two years of work, and the course in occupational therapy three years. While brief emergency courses have been established elsewhere, Columbia is giving the full course, it was explained, not only to train students for immediate war duties but also to meet "the increasing demands that will be made in the postwar rehabilitation period."*

On January 12 New York newspapers carried an exciting story of a surgical feat by a New Yorker. We quote the following account from the *Herald Tribune*:

"Lieutenant William W. Walker (j.g.), of the medical corps of the United States Naval Reserve, successfully performed an emergency appendectomy last week aboard a destroyer in a sea so rough that he was lashed to stanchions to help him keep a steady hand . . . The patient was another lieutenant, who on a previous trip saved Dr. Walker from possible serious injury or death.

"During the same week Lieutenant Walker, who is twenty-eight years old, performed a second appendectomy, froze a third appendix to postpone an operation, and set a fractured arm, according to his commander, Lieutenant-Commander George C. Seay.

"Lieutenant Walker, the son of Dr. William J. Walker, a New York police surgeon, of 840 Morris Park Avenue, the Bronx, [modestly] attributes the success with which he managed the series of medical emergencies to the cooperation of Commander Seay, to a pharmacist's mate who assisted him, and to a sympathetic crew."

Dr. John H. Barrett, of Palestine, Texas, who for the past two years has been a resident surgeon in

[Continued on page 276]

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* *Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241
N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 11, 590-592.

[Continued from page 274]

otolaryngology at the Manhattan Eye, Ear, and Throat Hospital, has returned to Texas to become associated with Drs. Foster, Logue, Cody, and Robison of the Houston Eye, Ear, and Throat Hospital.

Dr. Bret Ratner, clinical professor of pediatrics, New York University College of Medicine, has been appointed visiting pediatrician and director of pediatrics at the Sea View Hospital, New York City, to succeed Dr. Bela Schick, who has retired and is now consultant pediatrician.

Dr. George B. Dorff, Brooklyn endocrinologist and specialist in glandular disturbances, was inducted as president of the East New York Medical Society at its thirty-third annual installation meeting in the Temple Auditorium on January 3. He succeeds Dr. Morris Ant.

Dr. Dorff is in charge of the Children's Endocrine Clinic at Bellevue Hospital, Manhattan, and at Beth-El Hospital, Brooklyn. He is a Fellow of the American College of Physicians.

Other officers inducted, in addition to Dr. Dorff, by Dr. William Levine, a former president of the society who acted as the installing officer, were: Dr. Max Dannenberg and Dr. Jacob S. Reilly, vice-presidents; Dr. Harry Bloch, treasurer; Dr. Gerry L. Esersky, assistant treasurer; Dr. Mortimer M. Kopp, corresponding secretary; Dr. Harold Levy, recording secretary; Dr. Harry Rascoff, historian; Dr. A. M. Litvak, program chairman.

Dr. Raphael Kurzkrook spoke on "Sterility" and Dr. A. Weissman on "A New Pregnancy Test."

Officials of the Kings County Medical Society were guests at the meeting, including Dr. John Gainey, president; Dr. Leo Schwartz, president-elect; Dr. Charles McCarty, medical director; Dr. B. M. Bernstein, secretary; and Dr. A. Koplowitz of the economics committee.

Approximately one-fourth of the East New York Medical Society's membership of over 400 is now in the service and the remainder, in addition to heavily increased medical duties, is actively engaged in civilian defense endeavors.*

Friends and colleagues of Dr. A. Bern Hirsh paid tribute to him at a dinner held before his retirement as managing editor of the *Journal of the Medical Society of the County of New York* on December 31.

"Metropolitan News Briefs," a regular feature in the *New York County Journal*, carried these items in its January 9 issue:

"New Yorkers who will participate in the Fifth Annual Forum on Allergy to be held in Cleveland, January 9-10, are Dr. Mary E. H. Loveless, on 'The Immunology of the Atopic Reactions,' and Dr. Bret Ratner, on 'The Management of Asthma in Children.'"

"Ernest F. Krug, M.D., has been appointed consulting ophthalmologist at Lenox Hill Hospital."

"At the annual meeting of the Medical Alliance, Inc., held on December 24, the following officers were elected for 1943: Jacob A. Scal, president; Julius Ferber, secretary; Ellis M. Schwartz, treasurer; Barnett Dobrow, Solomon Feigin, and

Morris Schoenfeld, board of governors for three years."

"William T. Carstarphen, M.D., is serving as chief medical officer of the Rohwer War Relocation Project, in Washington, D.C."

"The following New York City physicians will participate in the fifth Annual Congress on Industrial Health, sponsored by the Council on Industrial Health of the American Medical Association, which will meet in Chicago January 11-13: Roy S. Bonsib, on 'Ocular Signs of Industrial Poisoning'; Leverett D. Bristol, on 'Problems of Organization and Administration' (in the immunization of industrial workers); M. H. Manson, on 'How to Make Industrial Medical Records Work for You'; and Henry D. Sayer, on 'Workmen's Compensation: The Shape of Things to Come.'"

Niagara County

Dr. Lemuel R. Hurlbut, of Lockport, has been appointed by the Board of Education as medical inspector of the Lockport public schools to fill a vacancy left by the death of Dr. Henry H. Mayne.

Dr. Hurlbut has been a practicing physician in Niagara County since 1906. During World War I he served in the Medical Corps of the U.S. Army, being discharged in 1919 with the rank of major. He was elected a Niagara County coroner at the general election last November and assumed that office on January 1.

Ontario County

The first regular quarterly meeting of the county society for 1943 was held in Canandaigua at the Canandaigua Hotel on January 12. A business meeting and dinner preceded the scientific session, which featured a full color movie, with sound, entitled "Peptic Ulcer." Discussion of the movie was given by Dr. W. J. M. Scott, associate professor of surgery, University of Rochester School of Medicine; Dr. A. S. Taylor, chief surgeon and superintendent of Clifton Springs Sanitarium and Clinic; and Dr. S. A. Munford, chief of medical staff of Clifton Springs Sanitarium and Clinic.

Otsego County

As a contribution to the war effort, the library of the Mary Imogene Bassett Hospital at Cooperstown has collected books, pamphlets, reprints, and government publications on the various aspects of war medicine and surgery, and is equipped with a new Spencer Microfilm Reader, thus making available to members of the medical profession within the neighboring communities all the latest material in these fields.

A full-time librarian is on duty and ready to offer assistance in assembling material for special studies. The facilities of the library are available not only to the staff members, but also to any members of the medical profession in the vicinity and neighboring counties who care to make use of them. Inquiries should be addressed to Miss Mary E. Davenport, librarian.

Schenectady County

Dr. Leandro M. Tocantine, associate professor of medicine at Jefferson Medical College and director of hematology at the Jefferson Medical College Hospital, spoke on nutritional and metabolic aspects of disorders of the blood at the Schenectady County Medical Society meeting on December 29 in the Nurses' Home Auditorium, Ellis Hospital.*

[Continued on page 278]



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[Continued from page 276]

Suffolk County

Recently many localities throughout New York State have reported alarming increases in juvenile delinquency—in some instances as high as 50 per cent. It is, therefore, with justifiable pride that Suffolk County can report a *drop* of almost 50 per cent in delinquency referrals for the fiscal year ending October 31, 1942, over a similar period in 1941.—*News Letter, Suffolk Co. Med. Soc.*

The quarterly meeting of the county society was held on January 27 at Friede's Riverside Inn in Smithtown.

For the purpose of providing financial assistance to the families of members of the staff who enter the armed forces, the members of the medical staff of Huntington Hospital have instituted a fund to which its members contribute. From this fund the families receive each month \$100 with which to maintain the expenses of home, insurance, and education of children, that might otherwise be impossible on the comparatively lower income of an officer. This plan is unique in the State of New York but is being studied by the Suffolk County Medical Society for possible adoption throughout Suffolk County.*

Westchester County

"Society Aims in 1943" were published in the January issue of the *Westchester Bulletin*. These aims are:

"1. To maintain the opportunities of practicing physicians to keep abreast of advances in medicine through as complete a schedule of society meetings as may be possible under the circumstances.

"2. To maintain communications with our members in service and to safeguard, in so far as possible,

their professional good-will while they are absent in the service of our country.

"3. To satisfy as rapidly and as adequately as may be possible the requirements of the 'home front' for medical service in the event of emergency or epidemic, and despite diminished numbers of medical personnel available.

"4. To seek out every promising opportunity for the extension of preventive medicine and health service to the public, with particular attention to industrial workers.

"5. To promote the acceptance of medical expense insurance and to assure its successful and satisfactory operation by every means at our command."

The county society had as its guest speaker at its regular meeting on January 19 Dr. Cornelius P. Rhoads, director of the Memorial Hospital in New York City. His topic was "Nutrition and Cancer."

Dr. Rhoads was formerly pathologist at the Hospital of the Rockefeller Institute for Medical Research. He did some important work on sprue and related anemias during the past few years, both in Puerto Rico and in New York. He is perhaps most widely known for his more recent work in the investigation of the influence of nutritional factors on the growth of tumors, and, conversely, the influence of tumors on the nutritional status of patients.

Dr. Rhoads is also a member of the Committee on Blood Substitutes of the National Research Council and played an important part in developing the present technic of the American Red Cross in blood procurement.

Dr. Samuel W. Hamilton, formerly of the staff of the New York Hospital, Westchester Division, is coauthor, with Edith M. Stern, of a new book, *Mental Illness—A Guide for the Family*.

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Maurice M. Berck	38	Cornell	January 4	Manhattan
Hermann J. Boldt	86	N.Y. Univ.	January 12	White Plains
Arthur R. Braunlich	74	P. & S., N.Y.	January 8	Manhattan
Louis B. Chapman	65	Cornell	January 9	New Rochelle
Charles T. Crance	64	Buffalo	December 26	North Tonawanda
Solomon D. Doren	61	Kiev	January 5	Syracuse
Adolph Goldhammer	70	P. & S., N.Y.	December 27	Bronx
Valentine J. Klein	76	N.Y. Univ.	December 28	Brooklyn
Hiram L. Knapp	75	Buffalo	December 21	Newark Valley
Orville N. Lewis	63	L.I.C. Hospital	January 9	Haverstraw
Vincent G. Maggiore	39	Virginia	December 5	Brooklyn
Nicholas L. Mulvey	81	Niagara	January 6	Syracuse
William H. Norrish	77	Niagara	December 27	Kenmore
Elmer E. Thurber	81	Vermont	December 27	Brainardsville
Frances H. White	73	Michigan	January 3	Fairport
Henry C. Young	81	Albany	January 8	Hagaman

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*Barrows: N. Y. St. Jr. Med., Vol. 41, Jan. 15, 1941

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Woman's Auxiliary

To the Medical Society of the State of New York

ATTENTION! County Chairmen on Press and Publicity:

More news will be welcomed by your state chairman. Be sure to send it in before the first and fifteenth of the month. It is through your cooperation that we know what each county auxiliary is doing. We have all had a happy holiday

season. Let's continue our good work through 1943.

The February board meeting will be held at the DeWitt Clinton Hotel in Albany on February 14 and 15. Please make your reservation early. You will hear more about this meeting. This is just an advance notice.

County News

Fulton. Mrs. M. F. Drury entertained the members of the woman's auxiliary at her home in Gloversville. Twenty-four members were present.

At the business session it was reported that the members had filled fifteen embarkation bags which have been sent to soldiers. Each member has also contributed a book for service men. A Christmas party was held after the business session, with Mrs. B. G. McKillip in charge of the program. Mrs. Clara Spencer sang a solo, and Miss Ruth Test gave a reading. Mr. Richard T. Furlong, acting as Santa Claus, distributed gifts. Refreshments were served under the direction of a committee headed by Mrs. Fred Lenz.

Nassau. The Nassau Hospital auditorium in Mineola was decorated in the Christmas theme for the annual Christmas party. A large Christmas tree was set in the center of the room and gifts placed around it—not for adults, but for the children, under the Nassau County Foster Parents program.

Mrs. Arthur D. Jacques presided at a short business meeting, when Mrs. J. C. Selicetti was received as a new member. Mrs. Jacques named the following as a budget committee: Mrs. Louis A. VanKleeck, Mrs. Albert M. Bell, Mrs. Arthur Chalmers Martin, and Mrs. Howard F. Munro. Military bridge was played, prizes going to Mrs. Nathaniel Robin, Mrs. William G. Burke, Mrs. Francis J. Buckley, Mrs. Walter F. Stillger, and Mrs. Joseph W. Wycoff. Mrs. S. Alton Dallgaard accompanied the singing of carols; and tea was served from a table decorated by Mrs. Martin. Mrs. Vincent C. Webb is chairman of hospitality.

In troubled times such as these that we are passing through, there is hardly a home in which one or more of the loved ones are not in the service of their country. These lines, spoken by Stephen Decatur, come to me, and I feel that they will give all of us a great deal of courage to carry on:

"Our Country—may she ever be right!

Or wrong
Our Country."

LECTURES ON PSYCHOTHERAPY OF THE CHILD

The Association for the Advancement of Psychotherapy began in January a series of discussion forums on recent advancements in the psychotherapy of the child, arranged by Dr. Ernest Harms, editor of *The Nervous Child*. Programs for the remaining sessions are as follows:

Third Session: February 10. "Adolescents in Need of Psychotherapy." Speakers: E. DeAlton Partridge, Ph.D., New Jersey Teachers' College, author of *The Social Psychology of Adolescence*; Theodore Abel, Ph.D., Letchworth Village, author of *The Subnormal Adolescent Girl*.

Fourth Session: February 24. "Mental Hygiene in School and Psychotherapy." Speakers: Lester Crow, Ph.D., Brooklyn College, and Alice Crow, Ph.D., Dean, Girls' High School, Brooklyn, authors of *Mental Hygiene in School and Home Life*.

Fifth Session: March 10. "The Nutritional Basis of Mental Disorders in Children." Chairman: J. Newton Kugelmass, M.D., Ph.D., Sc.D., author

of *Superior Children Through Modern Nutrition*.
Sixth Session: March 24. "Clinical Psychotherapy of the Child." Speakers: Bernard L. Paccella, M.D., New York State Psychiatric Institute; Lewis R. Wohlberg, M.D., Kings Park State Hospital.

Seventh Session: April 14. "Preschool Education and Psychotherapy." Speakers: Mary S. Fisher, Ph.D., Vassar College; Cornelia Goldsmith, Ph.D., Vassar College; Benjamin Spock, M.D.; Margaret Wagner, Dean, Ann Reno Institute; Dr. Barbara Birber and Louise P. Woodcock, Bank Street Schools.

Eighth Session: April 28. "The Role of the Family in the Psychotherapy of the Child." Chairman: Leo Kanner, M.D., Johns Hopkins University, Baltimore, Maryland.

Ninth Session: May 5. "Adult Psychotherapy and Child Psychotherapy." Chairman: Frederic J. Farnell, M.D., New York Medical College.

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Travel Items, a war baby of the travel industry, just published the newest news on railroad reservations and cancellations—

According to the bulletin, "Railroads are experiencing peak loads of passengers these days, and with accommodations growing increasingly scarce there are certain peacetime privileges that the traveler can no longer enjoy. One of these vanished prerogatives is that of blandly ignoring a Pullman reservation and receiving a refund.

"At insistence of government agencies the Pullman company has sharply curtailed the practice of refunds. The procedure boils down to this: To be sure of getting his money back on a reservation he is not able to use, the traveler must notify the railroad or any ticket office (not necessarily the one at which he bought the space) before train time. About the only acceptable excuse for not doing so is when a connecting train fails to arrive on time."

And here's how to obey the rule:

"The best way to make a cancellation is to take the ticket to the station, but if this is impossible a telephone call will suffice, provided the caller has at hand all the data on the ticket.

"If the ticket-holder cancels after the train has left, it is sometimes possible to wire ahead to the

Pullman conductor and authorize him to sell the space for the remainder of the trip. When this is done the original reserver gets a proportional refund.

"All this is a sharp departure from the policy that has been followed since the last war. But with all the improvements in the 7,000 Pullman cars now operating, none has ever been built with elastic sides, so capacity means *capacity*—period "

But the soldier's share:

"On certain days more than half of those 7,000 Pullmans will be in use transporting troops. In fact during 1942 men in the armed forces made more than 8,000,000 trips by Pullman. (These figures do not include service men on furloughs who were lucky enough to find accommodations.)

"Added to this is the great bulk of travel brought about by the war industries, plus the usual civilian transportation—all competing for the same limited facilities.

"So even if you can afford to pay for Pullman accommodations that you don't use you should make any necessary cancellations promptly because:

"1. If you don't need the space, someone else does.

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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

REVIEWED

Collected Papers of the Mayo Clinic and the Mayo Foundation. Edited by Richard M. Hewitt, M.D., et al. Volume XXXIII, 1941. Octavo of 1,099 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth. \$11.50.

The *Collected Papers of the Mayo Clinic and Mayo Foundation* for 1941, as usual, cover a wide range of subjects. The authors, thoroughly versed in their respective fields, give us the benefit of their personal experiences and bring our knowledge up to the minute. These personal opinions, based on numerous observations, are especially important in evaluating new remedies and new methods of procedure.

There are eleven papers dealing with aviation medicine. As in the past, the largest number of papers deal with the alimentary tract—benign lesions of the lower esophagus, early recognition of gastric carcinoma, portal cirrhosis, pancreatic lithiasis, regional enteritis, carcinoids, and the finding of asymptomatic perirectal abscess as the cause of obscure fever.

Among the papers on the genitourinary tract the discussion of prognosis, bilateral renal tuberculosis, the restricted value of removal of surgical kidney lesions for the cure of hypertension, the production of hypertension by perinephritis, and the recognition of rupture of graafian follicle and corpus luteum cysts as the cause of acute abdominal pain will reward all readers for their pronounced value.

The discussions of the treatment of hyperthyroidism, when complicated by diabetes, the recognition of the malignant pathology of so-called lateral aberrant thyroid tumors, the independence of hypertension in hyperthyroidism, the Cutler-Power-Wilder salt restriction test in diabetes, and the recognition and differential diagnosis of spontaneous hypoglycemic states are excellent.

Many valuable pointers for the clinician and surgeon will be found among the papers dealing with the diseases of the blood, circulatory organs, skin, syphilis, head, trunk, extremities, central nervous system, radiology, physical medicine, and anesthesia.

The book must be read from cover to cover to be thoroughly appreciated. As in the years gone by, it serves as the annual refresher course in medicine and surgery. Excellent illustrations and charts enhance the value of the text.

MEYER A. RABINOWITZ

I. **Help Your Doctor to Help You When You Have High Blood Pressure.** Duodecimo of 25 pages. New York, Harper & Brothers, 1942. Cloth, \$0.95.

II. **Help Your Doctor to Help You When You Have Insomnia.** Duodecimo of 29 pages. Cloth, \$0.95.

III. **Help Your Doctor to Help You When You Have Heart Disease.** Duodecimo of 47 pages. Cloth, \$0.95.

IV. **Help Your Doctor to Help You When You Have Constipation.** Duodecimo of 59 pages. Cloth, \$0.95.

I. This discussion takes up the modern concepts in the etiology and treatment of high blood

pressure. It debunks some of the older ideas and warns against overoptimism as to results to be obtained by various medical and surgical procedures.

II. The individual and personal symptom, insomnia, scarcely requires a book for its presentation. However, the subject is intelligently set forth for the lay reader. Again drugs are mentioned even though they cannot ordinarily be obtained without a doctor's prescription.

III. This is an excellent little book on the problems of heart disease. The subject is well presented. It discusses every phase of heart disease intelligently and simply. Any intelligent layman should be able to understand it with ease.

IV. The difficult subject of constipation is handled in this little volume by giving the varying points of view in its management. Diet, exercise, and habit are stressed as they should be. Note is made of the fact that treatment of this common condition is individual and does not always respond as one expects. Criticism must be made of the enumeration of cathartics on the market, both proprietary and U.S.P., with the dosage and method of use. One must repeat that these books for the layman must shun any semblance of suggestions at self-medication.

In general, one might add that these little books do fulfill their purpose in presenting to the lay reader modern views on common conditions.

BENJAMIN M. BERNSTEIN

Diabetes Mellitus. By Zoltan T. Wirtschafter, M.D., and Morton Korenberg, M.D. Octavo of 186 pages. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$2.50.

This small volume is one of the most satisfactory on the subject of diabetes. The presentation is such that it must be considered a modified "source book," since excerpts, abstracts, and an excellent reference bibliography of 336 items are summarized and quoted throughout the text. The reviewer has never seen so much information compressed so lucidly within so small a compass.

History, glycogenesis, glycogenolysis, ketosis, acidosis, glucose tolerance tests, and vitamin and endocrine consideration precede a description of the visceral lesions of diabetes. There is an interesting chapter comprising discussions of xanthomatosis, lipid dystrophy, transverse nail furrowing, cataract, retinitis, coronary sclerosis, achlorhydria, Kimmelstiel-Wilson intercapillary nephritis, and neuritis.

The book then moves into the symptomatology and treatment of the disease and ends with a chapter on diabetic coma. Appropriately the last quotation is from Claude Bernard concerning the "liquid milieu interieur." The reviewer's enthusiasm for the book is undiluted.

FRANK BETHEL CROSS

The Mind and Its Disorders. By James N. Brawner, M.D. Octavo of 228 pages, illustrated. Atlanta, Ga., Walter W. Brown Publishing Company, 1942. Cloth, \$3.50.

[Continued on page 284]

clinical value. This value, it would seem, has been greatly advanced by excellent editing and arrangement together with an unusual degree of easy and enjoyable readability. This book is referred to in the foreword by Dr. Donald C. Balfour as a valuable monograph on the subject of cancer of the stomach. It has fully justified its appearance in the form of a valuable book.

JOSEPH RAPHAEL

Hospital Discharge Study. An analysis of 576,623 patients discharged from hospitals in New York City in 1933. By Neva R. Deardorff, Ph.D., and Marta Fraenkel, M.D. Volume One—Hospitals and Hospital Patients in New York City. Octavo of 209 pages. New York, Welfare Council, 1942. Cloth, \$1.00.

Reading through this book, one realizes the vast amount of work entailed in compiling the figures. If the survey is to be complete, it should include all hospital discharges, whether private or ward. A definite criterion regarding the results is also clearly indicated. Without such, the statistics are of little value. For instance, one hospital may discharge a patient as "improved" after the incision of a localized abscess or the splinting of a greenstick fracture, while another marks "recovered" when a patient has been operated on for cancer of the stomach. End results, therefore, should not be coded without the benefit of a careful follow-up.

The discharge diagnosis will probably be much more accurate as most of the approved hospitals are using the *Standard Nomenclature of Disease*.

Incidentally, if another survey is to be made, we suggest coding all patients upon whom postmortems were performed, as this seems to be one of the most important items, although it was omitted entirely in this volume.

MARGARET A. HALLOCK

History of the School of Nursing of the Presbyterian Hospital, New York, 1892-1942. By Eleanor Lee, R.N. Octavo of 286 pages, illustrated. New York, G. P. Putnam's Sons, 1942. Cloth, \$3.50.

This history of the nursing school of the Presbyterian Hospital in New York, published on the occasion of the fiftieth anniversary of its founding, is an interesting contribution to the history of nursing and the nursing profession in America.

GEORGE ROSEN

Emergency Care. By Marie A. Wooders, R.N., and Donald A. Curtis, M.D. Octavo of 560 pages, illustrated. Philadelphia, F. A. Davis Company, 1942. Cloth, \$3.50.

This work is a well-planned and orderly presentation of a highly important and often neglected subject. The thoroughness with which all types of accidents are covered is to be commended. The volume reads easily and any topic is readily located because of the intelligent arrangement of the material.

Chapter XIX, entitled "Mental Emergencies," is particularly recommended and might better have been used as Chapter I.

The latter third of the volume may be apropos of the times, but we do not believe a detailed account of the organization of our armed forces is part of a textbook on emergency care. It is interesting, terse, and also well-presented but out of place.

PHILLIP E. LEAR

Solving School Health Problems, The Astoria Demonstration Study. Sponsored by the Depart-

[Continued on page 286]



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[Continued from page 282]

The author of this concise and readable introduction to the neuroses and psychoses has rendered a signal service to the medical profession. In the reviewer's opinion, he has succeeded in clarifying through the use of simple and descriptive language a readily grasped working knowledge of nervous and mental disorders. Pertinent use of illustrations clarifies neurophysiological and psychopathological conceptions. Treatment is briefly reviewed, mention being made of historical as well as modern methods.

It is highly recommended to those seeking a quick orientation in the field of neuropsychiatry.

FREDERICK L. PATRY

Diseases of Women. By Ten Teachers. Under the direction of Clifford White, M.D. Edited by Sir Comyns Berkeley, Clifford White, and Frank Cook. Seventh edition. Octavo of 435 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$6.00.

Twenty-three years have elapsed since the first edition of this textbook appeared, and now the new seventh edition has been published. Such a book needs no introduction. It is well known, as are the authors.

Time has made changes in the original list of contributors, but the places of the two men who have retired have been taken by other eminent teachers.

War conditions have scattered this group of authors, but, in the compilation of the text, the material was all submitted to the individual writers for their criticism and correction, so that this edition, like those of former years, represents the combined ideas of ten eminent teachers.

The book entirely covers its title subject. The volume is of moderate size, concise, and clear. The introduction of the sulfonamides has made it necessary to rewrite the description of the treatment of most inflammatory conditions affecting the pelvis and urinary tract. The sections dealing with the anatomy of the pelvic organs and the physiology of menstruation have been fully revised, and a simple classification of ovarian tumors and uterine polypi has been introduced. This small textbook is worth while, and it should continue to be widely read.

WILLIAM SIDNEY SMITH

Carcinoma and Other Malignant Lesions of the Stomach. By Waltman Walters, M.D., Howard K. Gray, M.D., and James T. Priestley, M.D. Octavo of 576 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$8.50.

This is a careful analysis and critical study of 11,000 patients of the Mayo Clinic for whom a diagnosis of malignant disease of the stomach had been made from 1907 to 1938, inclusive. Of these, 6,352 underwent operations, of which 2,840 were resections. Besides the three names on the title page, there were some 16 other contributors from among the associates in the Mayo Clinic and the Mayo Foundation.

The conclusion arrived at after this study is that "the treatment of malignant disease of the stomach of all types is surgical." Methods of diagnosis and differential diagnosis are evaluated, pathology discussed, pre- and postoperative treatment emphasized, and the types of surgical approach which have had the greatest application and success are explained and amply illustrated. There are 42 pages of statistical tables and graphs. Such a study of so great a number of cases under some sort of continuous supervision has, of course, a high

HANDWRITING DIAGNOSIS

in a December issue of the *New York Journal Commerce*, a need for handwriting analysis was brought to light.

According to the publication, handwriting analysis is being increasingly employed by war production plants in order to place employees more accurately where they are better qualified for through latent ability and temperament. It is also used to determine any inherent weakness of character and moral standards.

So great has been the demand for such analytical service of one of the country's best-known experts engaged solely in commercial analyses, that he had moved to the West Coast in order to serve his clients more promptly.

As explained by the personnel director of a large plant, competent handwriting analysis discloses traits of temperament which would tend to retard the advancement of one employee to a position highly questionable, yet, on the other hand, might indicate that such a worker could be effectively trained for any mechanical job of responsibility other than one for training or supervising others. Such knowledge, it was stated, has been of superior value in connection with that eloped by other types of psychological or IQ tests and has saved the company much valuable time and money.

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This review results from a study supported by the Wine Advisory Board, an agricultural industry administrative agency established under the California Marketing Act, and has been sponsored by the Society of Medical Friends of Wine.

Members of the medical profession are invited to write for this monograph. Requests should be made to the Wine Advisory Board, 85 Second Street, San Francisco



Say you saw it in the NEW YORK STATE JOURNAL OF MEDICINE

[Continued from page 285]

ment of Health and the Board of Education of New York City. Dorothy B. Nyswander, Ph.D., Director of the Study. Octavo of 377 pages, illustrated. New York, The Commonwealth Fund, 1942. Cloth, \$2.00.

Widespread dissatisfaction has been expressed with school health programs by health and educational workers for a variety of reasons but chiefly because their practice does not match up with the underlying theory. A series of studies made during the past fifteen years has shown the need of knowledge not only of the kind, volume, and distribution of such services but also of their shortcomings in terms of end results. This book is really a culmination of these studies and contains an accounting of a four-year period of school health services in the Astoria district of New York City. The work was carried out by a Special Study Staff under an advisory committee and was sponsored by the Department of Health and the Board of Education.

The Astoria study group, working harmoniously together, examined the various aspects of school health services, determined the faults of the methods in current use, tried out new methods, and subjected the results obtained to a most detailed and painstaking analysis of all factors concerned. A strong conviction activated and directed this group in that they visualized school health services as being capable of providing a vital protective agency whose procedure could and must be improved. Their results as reported in this publication show the methods. They have introduced many improvements—priority in examination for children most in need, elimination of long delays in securing corrective attention, a more thorough examination, an increased sense of parent responsibility in health care as well as private physician interest, a greater utilization of available dental services, the establishment of a cooperative procedure of staff education and of suitable records.

Dr. Nyswander, the Director of the Study, and Dr. Philip Van Ingen and Dr. George T. Palmer, chairman and secretary, respectively, of the advisory committee, have contributed to the study of public health by the completion of this work.

JOSEPH C. REGAN

Health Education of the Public. A Practical Manual of Technic. By W. W. Bauer, M.D., and Thomas G. Hull, Ph.D. Second edition. Octavo of 315 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$2.75.

This book covers all phases necessary for presentation of the subject of health and its widest aspects to the layman. The use of exhibits, pamphlets, lectures, and the radio are fully discussed, and examples of their use are carefully elucidated. The material in this book should be familiar to the chairmen of committees in all medical societies interested in the subject of public health and health education in general.

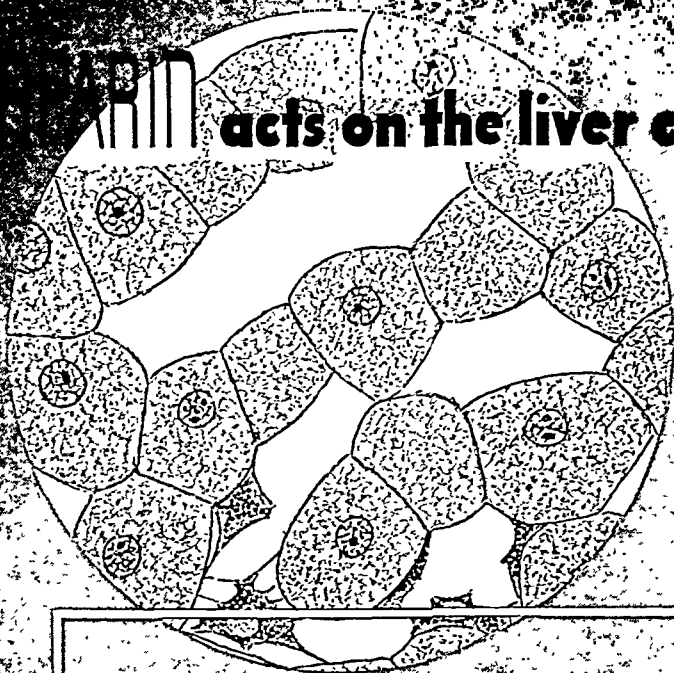
BENJAMIN M. BERNSTEIN

The Medical Clinics of North America. Volume 26, No. 4. July, 1942. Octavo of 1,345 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Published Bi-Monthly (Six Numbers a Year). Cloth, \$16 net; Paper, \$12 net.

Stressing industrial medicine, this volume of the *Clinics* gives an excellent summary of the more important aspects of sickness in factories. Employment and pre-employment examinations, compensation, tuberculosis, lead poison, dermatitis, and psychiatry as applied to industry are all covered.

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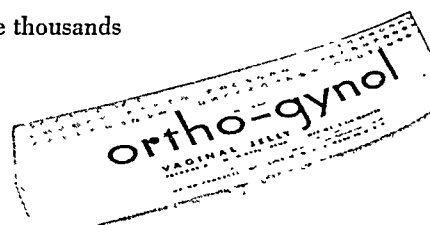
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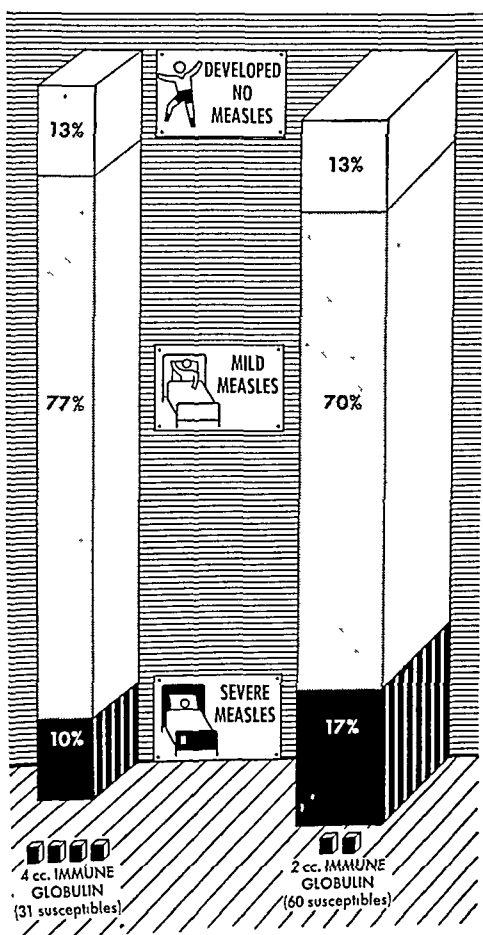
disease was milder in the group receiving 4 cc. intramuscularly, as compared with those given 2 cc.

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¹GOLDSTEIN, H.: Arch. Pediat. 59:303 (May) 1942.
²HYLAND, C. M.: Rocky Mountain M. J. 39 679 (Oct.) 1942.

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VOLUME 43

FEBRUARY 15, 1943

NUMBER 4


Published twice a month by the MEDICAL SOCIETY OF THE STATE OF NEW YORK. Publication Office 20TH AND NORTHAMPTON STS., EASTON, PA. Editorial and Circulation Office 292 MADISON AVE., NEW YORK, N. Y. Change of Address NOTICE SHOULD STATE WHETHER OR NOT CHANGE IS PERMANENT AND SHOULD INCLUDE THE OLD ADDRESS. Fifty cents per copy—\$5.00 per year. Entered as second class matter March 13, 1939, at the Post Office at Easton, Pa., under the Act of August 24, 1912.

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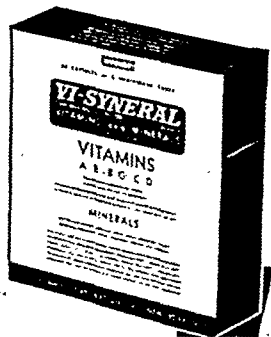
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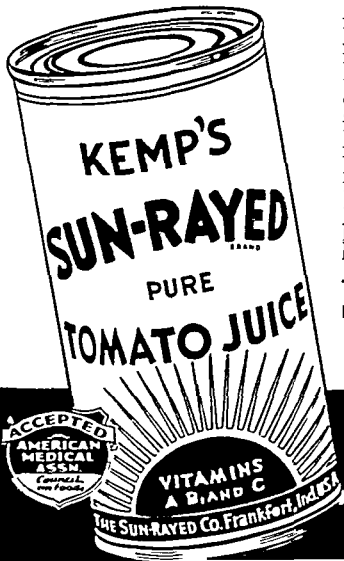
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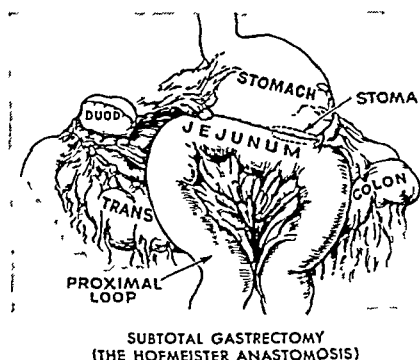
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1. Fauley, G. B.; Freeman, S.; Lej, A. C.; Atkinson, A. J.; and Wigodsky, H. S.; Aluminum Phosphate in the Therapy of Peptic Ulcer, Arch. Int. Med. 67, 563-578 (March) 1941.
2. Marshall, S. F., and Devine, J. W. Jr.; Gastrojejunal Ulcer, S. Clin North America, 743-761 (June) 1941.

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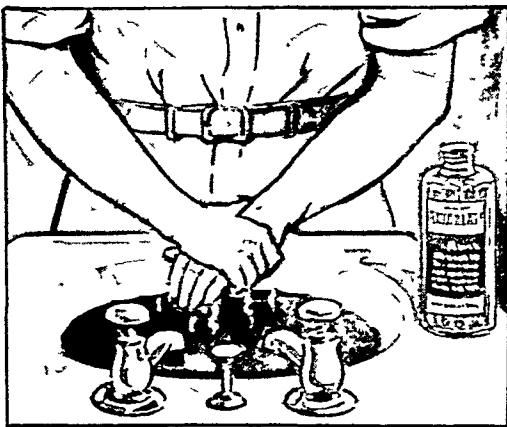


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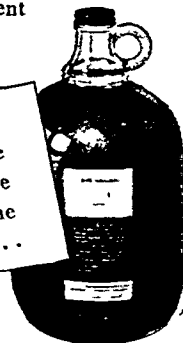
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* *Archives of Derm. and Syph.*, March, 1941.

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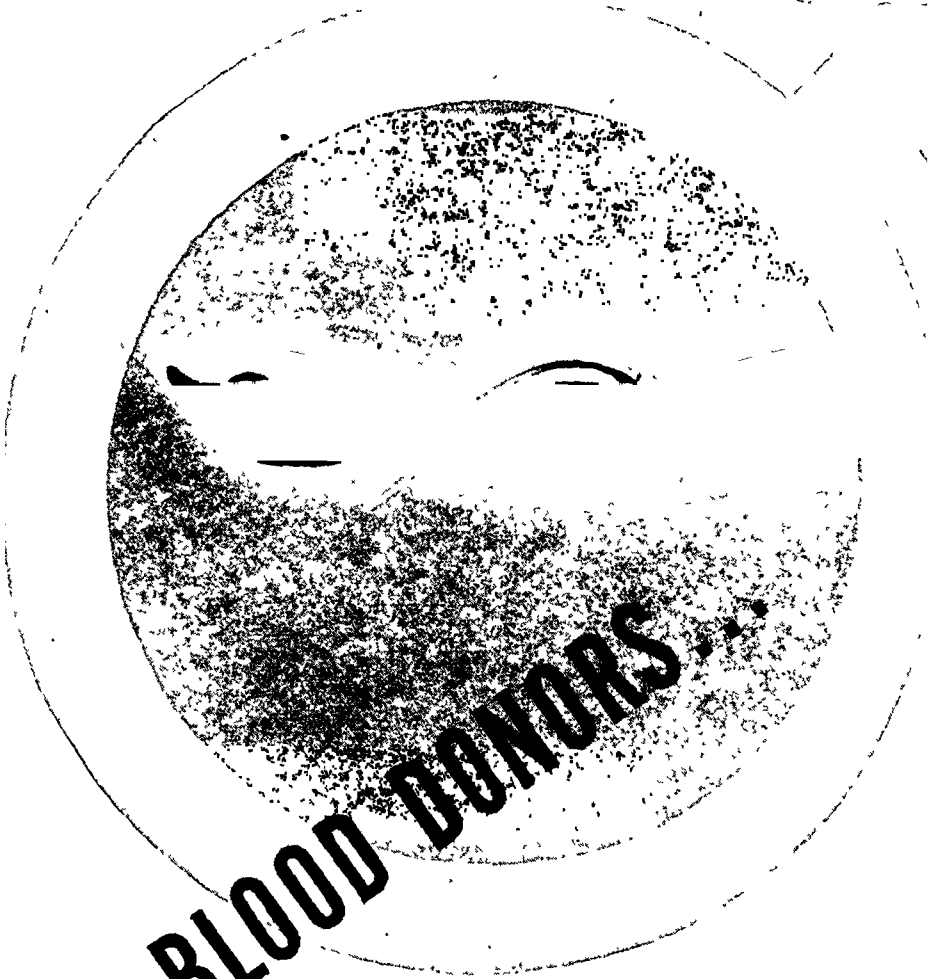
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†Fowler and Barer. "Rate of Hemoglobin Regeneration in Blood Donors." J.A.M.A., 118-421:1942.
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NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 43

FEBRUARY 15, 1943

NUMBER 4

Editorial

War and Social Reform, IV

The Supreme Court Decision

Most physicians will probably never read the full text of the unanimous decision of the United States Supreme Court upholding the conviction of the American Medical Association and the Medical Society of the District of Columbia of a conspiracy to violate the Sherman Antitrust Law. It will remain to them an academic matter, as vague as the personality of Mr. Sherman himself, and as imponderable as the things which the decision itself does not appear to decide; so much legal spinach, as it were, and to hell with it. For this attitude no one can blame them. They have been trained not for the law but for the practice of medicine, which they still consider, rightly or wrongly, a profession. In so far as the Supreme Court has left undecided the question whether a physician's practice is "trade" within the meaning of Section 3 of the Sherman Act, there still exists a reasonable presumption that the practice of medicine is essentially a profession with, maybe, business contacts around the edges, contacts which will likely become more numerous as cooperatives increase numerically. Concerning this question, trade or profession, "In the light of what we shall say with respect to the charge laid in the indictment," said Mr. Justice Roberts, "we need not consider or decide this question."

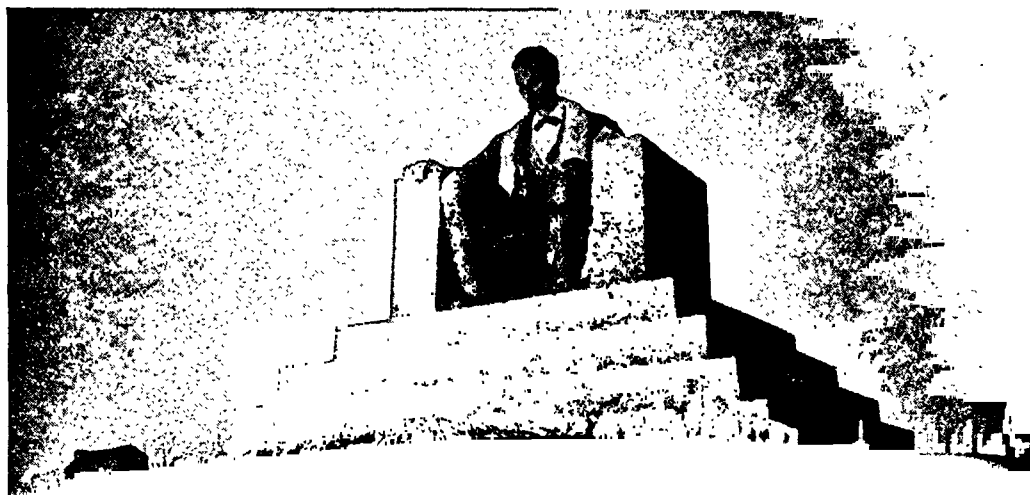
Concerning the cooperative, Group Health, Inc., however, the Court remarked: "The fact that it is cooperative and procures services and facilities on behalf of its members only does not remove its activities

from the sphere of business." In its relationship to cooperatives as exemplified by Group Health, Inc., it would appear to be of no materiality whether medicine is a trade or a profession. For the Court held "the calling or occupation of the individual physicians immaterial if the purpose and the effect of their conspiracy was . . . obstruction and restraint of the business of Group Health."

Cooperatives are businesses, in other words, and whatever relationships the profession of medicine has with them are business relationships and are subject to the provisions of Section 3 of the Sherman Act, regulating these relationships. The right of the public to establish cooperatives is presumably upheld, and the right of such cooperative business to hire doctors on their own terms and the right of physicians to organize into groups and to receive payment by any method of their choice are also presumably upheld.

The profession of medicine does not enjoy immunity as do the labor unions by reason of the Clayton Act or the Norris-LaGuardia Act, from prosecution under the Sherman Act. Why should it? We have never yet heard a convincing argument to prove that it should. Why should it be permitted to restrain business or trade? The chief concern of organized medicine should be the maintenance of standards of professional conduct and practice. As long ago as 1931, Dr. William H. Ross, president of the Medical Society of the State of New York,

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Pneumonia—A Secondary Disease

In former years the teaching was that pneumonias were either primary or secondary.¹ The latter, usually bronchopneumonia, followed already existing diseases, such as measles, whooping cough, influenza, etc. The primary pneumonias, chiefly lobar pneumonia, were largely attributed to the pneumococcus present in the upper respiratory tract, which descended to the lung after exposure to cold or because of other factors that lowered resistance. In recent years this concept has undergone considerable alteration.

We now realize that all forms of bacterial pneumonia are generally not primary. In nearly every case lobar pneumonia is preceded by the common cold, influenza, or some other virus adversely affecting the respiratory mucous membrane.^{2a} Colds, in turn, are caused by a virus which paves the way for invasion of secondary bacteria.^{2b} Similarly, the influenza virus predisposes to secondary infections.^{2c}

In the 1918 pandemic influenza, the most frequent secondary pneumonic invader was the *Streptococcus hemolyticus*, giving a characteristic clinical and pathologic picture.³ This organism, however, was not the only secondary invader. Numerous instances of pneumococcus,⁴ staphylococcus,⁵ and Pfeiffer's bacillus pneumonias⁶ were recorded during this epidemic. It is now realized that there is a synergism between the influenza virus and other bacteria, such as those enumerated.

Recent advances in the study of viruses have furnished additional facts regarding this synergism. Methods of culturing and isolating viruses during the primary infection have been devised. In the presence of the complicating pneumonia, the serums of the patients can be titrated for

neutralizing and complement fixing auto-virus antibodies. By such means it has been verified that pneumonias of different types are generally preceded by virus infections.⁷ In the New England studies, staphylococcus pneumonias were very prevalent, this organism following in the wake of an influenza A infection.⁷

Summing up the evidence, we can conclude that, with some exceptions, pneumonia is a secondary and not a primary disease. The exceptions are pneumonias due to the primary virus infection, to certain bacilli such as *Bacillus tuberculosis* and *tularensis*, and the mycoses. It seems clear that organisms find fertile soil in the lungs of patients stricken with influenza or a kindred virus infection. The secondary invader and the prevalent secondary pneumonia will depend on which organism is widely entrenched in the upper respiratory tracts of the community. In the presence of this train of events, chemotherapy may be advisable, not for the treatment of the initial virus disease (for that is ineffective), but prophylactically as an attempt to thwart the secondary invaders.

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2. (a) Cecil, R.: *Text Book of Medicine*, 5th Ed., Philadelphia, W. B. Saunders Co., p. 123; (b) *ibid.*, p. 3; (c) *ibid.*, p. 11.

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Intravenous Alimentation

There are times in disease, usually transient, when oral feeding is either undesirable or distinctly harmful. Intractable vomiting and diarrhea, particularly in infancy, and postoperative conditions and complications, especially of the gastrointestinal tract, are frequent examples. In such circumstances the institution of parenteral feeding spares and rests the gastrointestinal tract, permitting a more rapid restoration to normalcy.

For many years it has been a common practice to administer saline solutions intravenously. Glucose has been added to such solutions or, if preferable, simply given in distilled water in a concentration determined by the disturbed

chemistry of the body.¹ However, even if huge amounts of glucose solutions are given intravenously, it is impossible to supply the daily caloric needs solely by this method. To compensate for the quantitative deficiency in this type of feeding emulsions of fat have been injected by vein.² This addition still left unsolved the nutritional deficiencies caused by the absence of protein and vitamins. Elman and Weiner,³ by the intravenous administration of pure amino acids, supplied the missing protein stepping stones. They employed a 2 per cent solution of amino acids derived from the hydrolysis of casein, to which was added 2 per cent of tryptophan and cysteine, the missing essential

wrote:¹ "Organized medicine suffers from several weaknesses. One of them is the aloof relationship to health administration and to various health activities of a multitude of social organizations.

"Social changes will continue to increase in America, and social organizations to meet social needs will become more and more active. It will be better for the future position of the profession of medicine to guide the advent of these activities; determine their soundness and give them leadership in medical matters. Health activities of social organizations and the state must be considered as expressions of social medical need. It will be better to recognize and help to meet the problem than it will be to find something wrong with our relationship to it and then have to try to change that after the solution of the problems has passed the formative stage.

¹ Medical Times and L.I. Medical Journal (March) 1931.

Status of Physicians, 1942

During 1942, according to the *J.A.M.A.*,¹ 3,328 physicians died in the United States and Canada, but 5,163 graduates of medical schools in the United States were added. Excluding graduates of foreign schools first licensed in this country in the same year, the net gain in personnel to the profession stood at 1,952.

Of the three thousand and more deaths, heart disease again accounted for the greatest number. Coronary thrombosis and occlusion, other coronary diseases, and angina pectoris continued to lead the list, with cerebral hemorrhage, arteriosclerosis, and cardiovascular renal disease and chronic nephritis following close behind. The average age at death from all causes was 65, 0.9 per cent lower than in 1941 for a comparable number of deaths.

The year 1942 was not one of extraordinary pressure for physicians. Nor were deaths in military service to the number of 48 exceptionally high. Yet the toll of cardiovascular disease again heads the list of causes of death. It seems obvious that pressure of work on the physician age groups of 45 to 64 and 65 to 79 will increase during

"The profession of medicine does not always realize that it is not organized for administrative purposes, even though it is the only authoritative source of medical knowledge and the only group competent to give technical medical service. . . . It is medicine's obligation to furnish leadership, and in leadership rests the future position of medicine in public opinion." That was in 1931. It is now 1943.

Opportunity is still open to us. But for how long? It would be well to heed what Professor Bridgman of Harvard University said before the American Physical Society: ". . . scientists are curiously obtuse as to the social conditions which make possible their existence as a class. It is by no means a certainty that society will so evolve that the individual will be allowed to engage in independent intellectual activity. . . ." What say you, physicians?

the current year. What effect can be anticipated on the death rate from cardiovascular disease? In 1942, the number of deaths from all causes in these brackets was 45 to 49, 104; 50 to 54, 175; 55 to 59, 278; 60 to 64, 415; 65 to 69, 551; 70 to 74, 348; 75 to 79, 369. What will they be in 1943?

The loss in trained skill represented by this group is enormous. It is also the group upon which civilian medical service is chiefly dependent. Is it a proper function of organized medicine to study this group with the end in view to salvage all possible trained skills? Is the death rate in this group as low as it can be? Are some of these deaths preventable? If a study of this sort is not a proper function of organized medicine, of what agency is it a proper function? If skills at the present time of war are being unnecessarily wasted, and especially medical and surgical skills, whose concern should it be?

There is no such thing as a synthetic physician or surgeon. There is no such thing as synthetic experience in medicine. To what extent is salvage possible in this group? The present time of national necessity seems to us appropriate for a study of these questions. Is anybody interested?

¹ *J.A.M.A.* 121: 3 (Jan. 16) 1943.

SOME DIFFERENTIAL POINTS IN THE DIAGNOSIS OF ATYPICAL PNEUMONIA OF PROBABLE VIRUS ORIGIN

ANNE M. BAHLKE, M.D., Albany, New York

SINCE mid-August of 1942 the incidence of pneumonia of all forms as reported to the New York State Department of Health has been well above the five-year average for 1937-1941. A large proportion of this excess is attributable to cases regarded by the attending physician to be atypical and of obscure cause. Aside from one outbreak of this latter form of acute pneumonitis in a graduate school in an upstate city, no clear epidemics have been noted. There has been some tendency for the reported cases to be clumped in certain localities and more especially in the practices of certain physicians. Yet the reporting has been sufficiently widespread to make it clear that throughout the State as a whole physicians are conscious of and on the alert for this form of pneumonia.

The number of these cases reported weekly has mounted somewhat since the week in September when an article from the Bureau of Pneumonia Control appeared in the departmental weekly pamphlet, *Health News*, calling attention to the clinical aspects of the disease. Whether this increase is due to an actual increase in prevalence, or merely to an increasing awareness on the part of the profession, or both, cannot be ascertained. In either case the practicing physician is being faced more often with the problem of differentiating the atypical pneumonias from the more classical varieties and from grippe-like illnesses without pulmonic involvement. That such differentiation may be a difficult problem in individual cases is beyond question.

When the atypical disease assumes its usual pattern, one valuable differential point is established by the mode of onset. Instead of the sudden shaking chill with sharp pleural pain encountered so frequently in classical pneumococcal pneumonia, the patient with the atypical disease commonly complains only of insidious chilliness, and if he has discomfort in the chest it will be a sense of heaviness and soreness or aching, usually in the substernal region. At the same time he may become aware of an increasing malaise and a mild sore throat which is noticeable chiefly on swallowing. The latter symptom is rare in lobar pneumonia. Likewise rare is the headache which has been recorded so frequently and is often so severe in cases of atypical pneumonia.

In lobar pneumonia severe cough with char-

acteristic sputum is very likely to be one of the earliest symptoms. In atypical pneumonia several hours may elapse before coughing becomes established, but when it does it may be severe, paroxysmal, and highly intractable, even in the face of such effective medicaments as codeine or morphine. Most commonly it is dry in the early stages; later, mucoid or mucopurulent sputum in variable abundance may appear. Occasionally this sputum will be blood-streaked, but truly rusty or prune-juice sputum is not noted. Associated with the cough and probably partly responsible for it may be a severe grade of tracheitis.

Whereas the temperature mounts rapidly in classical pneumonia to a high level and stays high until defervescence begins, in atypical pneumonia the rise is likely to be slow and the level not maintained. Instead, the curve has a swinging contour, often with diurnal peaks, usually in the late afternoon or early evening. While levels of 104 F. or 105 F., and rarely even 106 F., have been recorded in the atypical disease, the majority of cases have only moderate fever of 101 F. or 102 F.; and occasional cases with characteristic x-rays have been presumably afebrile throughout. In lobar pneumonia fever is almost invariable. Furthermore, in lobar pneumonia recovery is most frequently by crisis; in atypical pneumonia a consistently lytic type of defervescence has been noted.

Accompanying the fever in the classical picture of pneumococcal pneumonia there is a proportional acceleration of the pulse rate. In a large percentage of atypical cases a relative bradycardia occurs.

Dyspnea and some degree of cyanosis are very common in the presence of the pneumonias of bacterial origin, even in cases in which the consolidation is not extensive. In the virus-type disease, on the other hand, both of these symptoms are relatively rare, and when they do occur the clinical picture is likely to be one of extreme severity in every other aspect as well. But even with severe disease and in the presence of definite respiratory distress, the respiratory rate is often not increased to the characteristically high levels of lobar pneumonia. Similarly, the delirium which is probably related to the anoxia of lobar consolidation has not been reported in the atypical disease.

In lobar pneumonia the fauces and pharynx may be somewhat suffused but for the most part they are not remarkable. In contrast to

From the Bureau of Pneumonia Control, New York State Department of Health, Albany, New York.

amino acids. By this method they were able to supply 2 Gm. of amino acid per kilo per day, an amount sufficient to establish a positive nitrogen balance. The development of the different vitamins in chemically pure form, adapted for parenteral administration, completed the chain of adequate intravenous alimentation.

Other investigators extended this method of feeding to correct specific deficiencies, such as the defective amino acid metabolism of nephrosis. Details and technics of administration have been carefully studied by these workers.^{4,5} More recently other conditions in which nitrogen equilibrium is difficult to achieve have proved amenable to intravenous alimentation.⁶ These latter investigators, by injecting amino acids intravenously, to the amount of 1 to 2 Gm. of nitrogen per hour, have attained nitrogen equilibrium in such varying diseases as malignant neoplasm, hyperthyroidism, chronic nephritis, cirrhosis of the liver, and chronic infections, such as chronic empyema.

In the past, parenteral feeding was poorly accomplished by the rectal or peritoneal administration of glucose and saline. These methods yielded pitifully few calories, and too frequently resulted in excessive abdominal distention. The injection of the necessary food elements by vein alone or in conjunction with vitamins injected subcutaneously or intramuscularly is a unique and invaluable addition to the therapeutic armamentarium in conditions demanding complete rest for the gastrointestinal tract or added quantities of one or more of the elements of nutrition

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Correspondence

January 5, 1943

To the Editor:

Apropos of the high incidence of cancer among the Japs, as noted in the New York State JOURNAL recently, may I call attention to a note in a paper written by me* some time ago that "continuous grasp-

ing," and "greediness" were most potent factors in the genesis of stomach disorders, "including cancer."

Respectfully,

SMITH ELY JELLIFFE, M.D.
Hallett's Landing
Washington County, New York

*"The Bodily Organs and Psychopathology," *American Journal of Psychiatry*, March, 1936.

Medical Officers Needed in Navy

The following communication has just been released by the Office of Naval Officer Procurement:

"In order to satisfactorily care for the medical and surgical needs of the increase in personnel to meet the requirements for the great expansion of the Navy, a larger number of medical officers is required. The present number of medical officers in the Navy must be greatly increased.

"There are vacancies to be filled in the ranks of Lieutenant (junior-grade), Lieutenant, and Lieutenant-Commander in the Medical Corps, and opportunities for promotion while on active duty.

"It is the policy of the Navy Department when specific needs arise to order medical officers for courses of instruction in various specialties.

"The following special courses of instruction for a limited number of medical officers in the Naval Reserve are now available: aviation medicine, medical duties with parachute troops, medical duties in deep diving, psychiatry, anesthesia, thoracic surgery, neuro-surgery, physical and fever therapy, and duties with epidemiology and laboratory units.

"Applications are accepted of those who do not meet the physical standards if their irregularities are not likely to be progressive or interfere with the performance of duty.

"NAVAL OFFICER PROCUREMENT
Medical Department
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In the pure form of the virus-type pneumonia under discussion all the accepted sulfonamides have been tried and all who have used them agree that they do no good whatever. While there is no evidence that these drugs accentuate the disease process, there would seem to be little justification for their use in these cases because of the toxic reactions they may produce. In a few severe cases transfusions of convalescent and supposedly immune blood have been given, but there is no indication that these measures have had any appreciable effect on the disease.

When a case with the general picture attributed above to atypical pneumonia is encountered, pneumococcal pneumonia is by no means the only entity that must be ruled out of course. With severe forms of the disease miliary tuberculosis, acute rheumatic fever, typhoid fever, undulant fever, psittacosis, ornithosis, American Q fever, and even such conditions as subphrenic abscess may warrant consideration. With milder forms, the chief confusion comes from influenza, particularly under endemic conditions. In the latter disease the onset is usually more explosive, and constitutional symptoms are likely to be more marked, with aching of the back and extremities prominent among the initial symptoms. It will be recalled that in atypical pneumonia usually the only noteworthy aching is in the head and chest. Similarly the photophobia and pain on ocular motion so characteristic of influenza are seldom if ever encountered with atypical pneumonia. And the positive chest signs by physical examination and x-ray are lacking in uncomplicated influenza. Finally, with epidemiologic luck some indication of the incubation period may be given, and, if so, this has differential significance, since for influenza it is one or two days and for atypical pneumonia it is agreed by most authorities to run from twelve days to three weeks.

One thing that should stand out in the above discussion is the recurrent monotony of qualifying words and phrases such as "usually," "often," "maybe," and "in most cases." Such qualifications are important to remember whenever an attempt is being made to differentiate the virus-type pneumonia from clinically similar conditions. Considerable progress has been made toward a clarification of the clinical picture, but it is far from clear-cut as yet, and it is only when all the diseases mentioned take a typical form or the virus type occurs in epidemics, that differentiation of these entities can be made with any certainty. A differential diagnosis in any given case between atypical

pneumonia of probable viral cause and an atypical bacterial pneumonia, or between the virus-type disease and influenza, may never be possible. Probably the best principle to follow is not to make a definite diagnosis of virus-type pneumonia unless the clinical picture as described is accompanied by either physical or x-ray signs of pulmonic involvement. Some true cases will doubtless be disqualified in this way, but it is nevertheless the most scientific basis to work upon until such time as the causative agent has been identified and the clinical diagnosis can be properly confirmed by immunologic methods.

List of Suggested Readings

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this is the situation frequently reported in atypical pneumonia—the fauces dusky red, the uvula swollen, the soft palate granular-looking, and the posterior pharyngeal wall markedly engorged, with a striking hypertrophy of the lymphoid tissue. Occasionally petechiae appear on the pharyngeal mucosa, and it has been thought by some observers that they are related to the severity of the cough and probably account for the blood-streaking of the sputum when it occurs.

Probably the most striking difference which exists between classical and atypical disease is encountered when consideration is given to the physical signs in the chest in these two conditions. There is no need to review the cardinal signs of lobar consolidation. It should be sufficient to say that the picture that those signs present is lacking in atypical pneumonia, so that there is seldom more than slight diminution of resonance and rales. The rales occur much more often than the dullness, but even they are not invariably present, and cases are on record in which definitely positive x-ray pictures have been found in the absence of any demonstrable physical signs. Rales, when present, are of the moist variety, fine, medium, or coarse. They may be numerous, but for the most part they are relatively few, and often they are heard only at the end of deep inspiration or after cough. In some cases rhonchi may be heard.

The patient with atypical pneumonia may occasionally look very sick, but even when he does, he seldom has the toxic appearance of the severely ill classical case; nor does he show the abdominal distention that so often accompanies the latter. Other gastrointestinal reactions, such as nausea and vomiting, may occur in either type of disease, but they are not prominent symptoms in either.

Herpes has been observed in atypical pneumonia, but with nothing like the frequency that it occurs when the illness is due to the pneumococcus. An erythematous eruption, on the other hand, virtually unheard of in untreated pneumococcal pneumonia, has on rare occasions been observed in severe cases of the atypical disease.

The characteristic x-ray shadow of pneumococcal lobar pneumonia is familiar to all. In virus-type pneumonia the lobar picture may be simulated closely, but for the most part the atypical trend that marks the clinical picture is followed roentgenologically as well. There is usually a diffuse increase of the bronchial markings and the first evidence of consolidation appears as a widening of the hilar shadows on one or both sides. Subsequently, the lesion spreads outward to the periphery and occasionally may

look solid, but usually it has a ground-glass or patchy appearance. Two or three lobes may be involved, and often the lesion appears to be regressing in one lobe at the same time that it is spreading in another. The x-ray usually becomes positive within the first week of illness and may clear within a few days or remain positive for several weeks. Ultimate complete clearing is the rule. In spite of the absence of pleural pain, if the right middle lobe is involved, thickening of the transverse pleura is occasionally seen. Actual effusion is very rare.

The moderate or marked leukocytosis that appears early in favorable cases of pneumococcal pneumonia is absent in the virus-type cases. These may show a slight elevation of white cells to 12,000–15,000 after the disease has been in progress for several days, but the early white count is usually normal, or there may even be an actual leukopenia.

A good sputum specimen from a case of pneumococcal pneumonia will usually show pneumococci in large numbers within twenty-four hours of the onset. Sputum from atypical pneumonia, on the contrary, shows only a mixed flora such as is found in pharyngeal secretions, and when pneumococci are present they are apt to be few in number and of the higher types.

The patient who has safely passed a crisis in a classical lobar pneumonia often returns to health at a surprising and gratifying rate of speed. The patient with the atypical disease may suffer from anorexia, profuse sweating, and weakness to a degree and for an interval out of all proportion to the apparent severity of his acute symptoms. And the acute febrile phase may be protracted so that two weeks or more may elapse even in mild cases before the patient may properly be regarded as convalescent; in many of the severe cases daily fever has persisted for three to four weeks. Such prolonged fever might be presumed to suggest the presence of secondary bacterial invasion and such foci should be watched for, but actually sequelae are rare.

Therapy with regard to virus-type pneumonia is in the symptomatic and supportive stage, and to date applications of the more specific agents have been uniformly unsuccessful. There is no reason to assume, of course, that anti-pneumococcal serum would be of benefit in the cases that do show pneumococci unless those micro-organisms are present in large numbers, and if they are, there is every likelihood that the patient does not have a virus-type pneumonia but rather an atypical case of bacterial origin. The brilliant results produced by sulfonamide drugs in classical pneumonia need no emphasis.

oratory tests may be employed to denote the major source of the hyperbilirubinemia. The hemobilirubin formed by the breakdown of hemoglobin by the cells of the reticulo-endothelial system gives the indirect van den Bergh reaction. The hepatic parenchyma converts this to cholebilirubin which gives the direct van den Bergh reaction. This test, therefore, can be used to distinguish between the jaundice produced by retention and that caused by regurgitation (Rich classification).¹ Thus, an indirect van den Bergh reaction in the presence of clinical jaundice is indicative of a hemolytic process; the test, however, will not distinguish between obstructive and hepatic types of jaundice.

Hemobilirubin ordinarily is retained by the kidneys but cholebilirubin, if present in the blood, is readily excreted in the urine. Urobilinogen is formed in the intestine by the bacterial reduction of bilirubin. It may be reabsorbed and excreted in the urine. The changes in the urinary pigments in the different types of jaundice are shown in Table 2. In hemolytic jaundice, urobilinogen without the presence of bilirubin in the urine is the rule. If biliary obstruction is complete, bilirubinuria without the presence of urobilinogen is encountered. Both pigments are present in cases of hepatitis or incomplete obstruction of the common bile duct. If the urinary excretion of urobilinogen is to be used as an indicator of the patency of the common bile duct, repeated tests should be made over a considerable period of time before a final decision is reached, since an acutely damaged liver may fail to secrete bile for several days and so mimic an obstructive jaundice.

Once hemolytic icterus is excluded, the problem usually confronting the clinician is whether to treat the patient surgically or medically. This question is primarily one of determining the patency of the common bile duct; in this clinic, duodenal drainage is frequently performed in order to obtain this information and the results have been of inestimable value in determining the necessity for surgical intervention.

Several metabolic tests have been proposed as an aid in differentiating between obstructive and nonobstructive jaundice. When the icterus is mainly obstructive in type, the galactose tolerance,² the cholesterol esters of the serum,³ and the conjugation of benzoic acid⁴ tend to be normal, while the serum phosphatase⁵ is increased. When jaundice is hepatic in origin and associated with parenchymal injury, the galactose tolerance, the cholesterol esters of the serum, and the conjugated benzoic acid all tend to be reduced, while the serum phosphatase is normal. Unfortunately, these various tests are not necessarily affected in the same way or to the same de-

TABLE 1—CLASSIFICATION OF TESTS FOR HEPATIC FUNCTION

I. THE EXCRETORY FUNCTIONS OF THE LIVER	
A. Formation and Secretion of Bile	
1. Secretion of bile acids	(a) Concentration of bile acids in blood
(b) Concentration of bile acids in bile	
2. Excretion of bile pigments	(a) Bilirubin
(I) Concentration of bilirubin in bile	
(II) Retention of bilirubin in blood	(A) Icterus index*
(B) Van den Bergh*	(1) Hemobilirubin (indirect reaction)
(2) Cholebilirubin (direct reaction)	
(b) Urobilin and urobilinogen in urine*	
(c) Porphyrin (the urinary/fecal coproporphyrin ratio)	
3. Excretion of cholesterol (concentration of cholesterol in bile)	
4. Excretion of inorganic salts	(a) Sodium chloride
(b) Calcium	
5. Excretion of water	
B. Excretory Loading Tests	
1. Bilirubin	(a) Bilirubin excretion test
2. Dyes	(a) Phenoltetrachlorophthalein excretion test
(b) Rose bengal excretion test	
(c) Azorubin-S excretion test	
(d) Bromsulphalein excretion test*	
(e) Phenoltetraiodophthalein excretion test	
II. THE METABOLIC FUNCTIONS OF THE LIVER	
A. Carbohydrate Metabolism	
1. Fasting blood sugar	
2. Galactose tolerance test*	
3. Dextrose tolerance test	
4. Fructose tolerance test	
5. Utilization of d-lactic acid	
B. Protein Metabolism	
1. Concentration of amino-acids in blood	
2. Concentration of urea in blood	
3. Concentration of ammonia in blood	
4. Concentration of uric acid in blood	
5. Concentration of guanidine in blood	
C. Fat Metabolism	
1. Concentration of cholesterol in blood	(a) Total cholesterol*
(b) Cholesterol partition (ester/total ratio)*	
2. Fat tolerance tests	(a) Oral fat tolerance
(b) Intravenous fat tolerance	
D. Blood Forming Functions	
1. Erythrocytes (macrocytic hyperchromic anemia)	
2. Plasma proteins	(a) Fibrinogen
(b) Albumin	(I) Concentration of serum albumin*
(II) Takata-Ara reaction*	
(III) Formol-gel reaction	
(IV) Weltmann coagulation band	
(V) Magnesium chloride test	
(VI) Colloidal gold reaction	
(c) Prothrombin	(I) Prothrombin time*
(II) Response of prothrombin time to vitamin K administration*	
(d) Abnormal protein production (?)	(I) Cephalin-cholesterol flocculation*
E. Detoxification Function	
1. Hippuric acid synthesis*	
2. Cinchophen test	
F. Phosphatase Production	
1. Concentration of serum phosphatase*	

* Considered, in the opinion of the authors, as important tests for hepatic function.

gree. Furthermore, a considerable proportion of cases are seen in which the result of any simple functional test is at variance with the apparent diagnosis. An extensive and controversial literature dealing with the diagnostic value and the comparative sensitiveness of this group of tests has arisen.

Much of this confusion has resulted from a failure to recognize the fact that the liver has a

THE FUNCTIONAL STUDY OF THE LIVER AND ITS CLINICAL EVALUATION

CARL H. GREENE, M.D., and MAURICE BRUGER, M.D., New York City

IT IS generally recognized that the liver has an enormous functional reserve and possesses what has been described as a "superabundance of tissue." Its activity is known to vary not only from day to day but also from hour to hour. Rarely does this organ work at full capacity for any length of time. However, the more the parenchyma of the liver is destroyed, the less the reserve and the greater the basic load. Fortunately for the sake of bodily economy, the liver has a marked regenerative capacity, perhaps the greatest of any organ in the body. Only in the presence of acute injury or of prolonged chronic disease do we find the parenchyma of the liver sufficiently destroyed to diminish the reserve and to produce evidence of hepatic insufficiency.

The liver has many functions, and no other organ is called upon to play such an active part in the maintenance of normal health. It has secretory, excretory, and metabolic activities. The secretion and excretion of bile with its content of bile salts, bile pigments, cholesterol, inorganic salts, and water is but one of the recognized functional activities of this organ. The importance of the liver in the maintenance of normal carbohydrate metabolism is common knowledge. It also plays an active part in the intermediary metabolism of fats and proteins. Its importance in the formation of the blood, particularly with respect to the plasma proteins, is well recognized. The liver, moreover, detoxifies various organic compounds which then are excreted in the bile or urine as relatively innocuous substances. The liver is the source of various enzymes such as amylase and small amounts of phosphatase, as well as many others which play an important part in the synthesis and mobilization of liver glycogen. No other organ in the body has such manifold activities, and it well deserves the title given to it by Mann—namely, "the commissariat of the body."

Obviously, therefore, there can be no single test for hepatic function which will measure all these activities. Individual tests, shown in Table 1, have been described which attempt more or less successfully to evaluate one or another of these functions. This table is by no means complete or comprehensive, but it serves to show the complexity of the problem and to

indicate the more important physiologic activities of the liver.

It is neither desirable nor practical to carry out more than a few of these functional tests on any one patient. The choice of the procedures to be utilized must not be haphazard since many of these have specific indications. Moreover, the results of such studies should supplement the clinical information obtained by a detailed history and a careful physical examination.

Functional Tests in Hepatic Disease with Jaundice

Jaundice is the outstanding clinical symptom indicative of disease of the liver or biliary tract. Patients with hepatic disorders, therefore, can be divided into two groups—those with and those without jaundice. It is generally recognized that icterus may be classified in three main groups: (1) the hemolytic type, (2) the hepatogenous type, and (3) the obstructive type. The terminology varies according to the classification used, but in general these three groups are fairly well defined. It should be emphasized, however, that only under exceptional circumstances is the jaundice uncomplicated in type. For example, the hemolytic icterus of patients with malaria or hemolytic anemia is frequently complicated by damage to the hepatic cells. Patients with carcinoma of the head of the pancreas probably present a picture of uncomplicated obstructive jaundice during the first few days of the obstruction, but thereafter parenchymal damage develops in consequence of obstruction and hydrohepatosis. Obstructive jaundice due to stones in the common bile duct is frequently aggravated by associated cholangitis and consequent damage to the hepatic parenchyma. Hepatogenous icterus or catarrhal jaundice has many obstructive features, as may be evidenced by the multiple thrombi present in the biliary canaliculi. Finally, the hemolytic jaundice occurring in the crisis of acute hemolytic anemia is not infrequently accompanied by the deposition of pigment stones in the biliary tract. It must be recognized, therefore, that in many patients with jaundice, the clinician is confronted with a diffuse disease of the liver, and the classification of the icterus into hemolytic, hepatogenous, or obstructive types merely represents the major element in its production.

Even though it will be agreed that uncomplicated forms of jaundice rarely occur, several lab-

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

From the Department of Medicine, New York Post-Graduate Medical School and Hospital, Columbia University, New York City.

TABLE 3—THE CEPHALIN-CHOLESTEROL FLOCCULATION TEST IN VARIOUS DISORDERS

Disorder	No. of Cases	Cephalin-Cholesterol Flocculation				
		Neg.	+	++	+++	++++
1. Obstructive Jaundice						
A. Carcinoma of pancreas or bile ducts without metastases	7	6	1	..	....	.....
B. Chronic cholecystitis with stone	7	6	1	..	....	.....
C. Stricture of common bile duct	3	3	..	..	....	.....
D. Obstructive biliary cirrhosis	6	..	1	..	....	5
E. Acute cholecystitis	4	3	1	..	....	.....
2. Hepatogenous Jaundice						
A. Carcinoma of liver	9	1	..	..	2	6
B. Portal cirrhosis	22	2	3	2	2	13
C. Simple hepatitis (catarrhal jaundice)	13	..	1	1	2	9
D. Subacute and toxic hepatitis	6	..	1	..	3	2
E. Congestive heart failure	4	1	..	..	3	..
F. Miscellaneous cases	8	3	2	..	3	..
3. Hepatic Disease Without Jaundice						
A. Portal cirrhosis	5	1	..	1	..	3
B. Congestive heart failure	5	3	1	..	1	..
C. Chronic cholecystitis	6	5	1	..	..	..
D. Gaucher's disease	3	..	..	..	..	3
4. Nonhepatic Disease Without Jaundice						
A. Rheumatoid arthritis	26	15	3	5	2	1
B. Malaria	2	..	..	..	..	2
C. Anemia	3	2	1	..	..	..
D. Carcinoma	4	3	..	..	1	..
E. Miscellaneous	17	13	2	1	1	..

the most effective method of combating the tendency to postoperative hemorrhage.

Functional Tests in Hepatic Disease Without Jaundice

The diagnostic problem is different in cases of chronic hepatic disease without jaundice. Three important conditions fall into this category—namely (1) cirrhosis, (2) chronic passive congestion, and (3) primary or secondary carcinoma. The excretory loading tests are of particular value in this group. In this institution, the bromsulfalein excretion test is favored because the dye is cheap, is readily obtainable, and rarely produces a systemic reaction after intravenous administration. This test, as proposed by Rosenthal and White,¹⁴ employed 2 mg. of the dye per kilogram of body weight. Greene¹⁵ increased the dosage to 5 mg. per kilogram. The larger amount of dye increases slightly the sensitivity of the test. Macdonald¹⁶ has modified this procedure by doing serial determinations of the bromsulfalein content of the serum after the intravenous administration of 2 or 5 mg. of the dye per kilogram of body weight. Recently, Mateer and his coworkers¹² claimed a greater sensitivity for the serial bromsulfalein test than for the original Rosenthal and White method.

Obviously, all excretory loading tests may be increased in sensitivity by augmenting the amount of material injected. It should be remembered, however, that the greater the sensitivity of the test, the more will physiologic factors influence the results. Thus, an associated anemia or a slight degree of circulatory insufficiency may give positive results if the excretory loading test is rendered too sensitive. For these reasons, we have preferred the original Rosenthal and White procedure, using the 5 mg. per

kilogram dose, since under these circumstances abnormal dye retention in the blood could be interpreted safely as indicating hepatic damage.

One of the factors in the production of ascites in patients with cirrhosis of the liver is the reduction in the serum proteins, particularly the albumin fraction. For the most part, the serum globulin remains unchanged and a reversal of the albumin/globulin ratio occurs. A number of tests have been introduced which attempt to measure this disturbance in the blood proteins such as the Takata-Ara reaction,¹⁷ the formol-gel test,¹⁸ the Weltmann coagulation band,¹⁹ the magnesium chloride test of Bauer,²⁰ and, more recently, the colloidal gold reaction.²¹

Of these, we prefer the Takata-Ara reaction since it is the simplest to do and is perhaps the most specific. If other conditions producing a reversal of the albumin/globulin ratio in the serum, such as Bright's disease, multiple myeloma, lymphogranuloma venereum, chronic infections like tuberculosis, etc., can be ruled out, the Takata-Ara reaction may be used in the differential diagnosis of chronic hepatic disorders without jaundice. Bromsulfalein dye retention may occur in chronic passive congestion of the liver, in primary or secondary carcinoma of the liver, and in hepatic cirrhosis, but the Takata-Ara reaction is negative in the first two conditions and almost always positive in the last.

Summary

Since the liver has many activities, there cannot be a single test for hepatic function. The individual tests proposed to measure these manifold activities have been classified and their specific indications noted. The value of the cephalin-cholesterol flocculation test in the differential diagnosis of hepatogenous jaundice

TABLE 2—THE VAN DEN BERGH REACTION AND THE EXCRETION OF BILE AND UROBILINOGEN IN THE URINE OF NORMAL SUBJECTS AND IN PATIENTS WITH DISEASES OF THE LIVER AND BILIARY TRACT WITH AND WITHOUT JAUNDICE

Disorder	Serum van den Bergh Reaction		Urine	
	In- direct	Direct	Bili- rubin	Uro- bilinogen
Normal	=	0	0	0
Hemolytic jaundice	+ + +	0	0	+ + + +
Hepatitis	0	+	++	++
Obstruction of com- mon bile duct (par- tial)	0	++	++	++
Obstruction of com- mon bile duct (com- plete)	0	+ + +	+ + +	0
Cirrhosis (no jaun- dice)	=	=	=	+ + + +

large factor of safety so that extensive injury may not preclude a normal response to one or the other test. The different procedures are concerned with different physiologic activities and so need not be affected in either the same manner or same degree. It has long been accepted that the clinical picture in the various types of jaundice is not always distinct. The same confusion is true of the pathologic changes in many cases of chronic hepatitis of varying degrees of severity.

When the various interfering factors are taken into consideration, it becomes obvious that the clinical grouping of cases of jaundice into hepatic and obstructive types is arbitrary. The value of functional tests is not determined by the relative percentage of positive results in cases of hepatic and obstructive types of jaundice. The tests should, rather, be used in an attempt to determine the extent to which the various elements already discussed enter into the clinical picture.

The Cephalin-Cholesterol Flocculation Test*

In 1938, Hanger⁶ described the cephalin-cholesterol flocculation test as a laboratory procedure to be used in the differential diagnosis between obstructive and hepatogenous jaundice. Since then, Hanger,⁷ Hanger and Patek,⁸ Pohle and Stewart,⁹ Rosenberg,¹⁰ Rosenberg and Soskin,¹¹ Mateer and his coworkers,¹² and Lippman and Bakst¹³ have reported favorable results with this test.

Cephalin-cholesterol flocculation tests were carried out according to the original technic of Hanger in 27 patients with obstructive jaundice, in 62 with hepatogenous jaundice, in 19 with miscellaneous types of hepatic disease associated with jaundice, and in 52 with various non-hepatic diseases without icterus—a total of 160 tests. The results are given in Table 3.

* With the assistance of Drs. James R. McMillan and Hobart H. Todd.

This table shows that in early obstructive jaundice, the cephalin-cholesterol flocculation test was usually negative. Positive results, however, were observed in long-standing cases of common bile duct obstruction associated with obstructive biliary fibrosis. In hepatogenous jaundice, the test was positive in a large percentage of cases. In other types of hepatic disease without clinical jaundice, such as portal cirrhosis, chronic passive congestion, and Gaucher's disease, the flocculation test frequently gave positive results. A negative reaction was the rule in cases of chronic cholecystitis, as well as in the majority of control cases. Positive tests were also encountered in a few conditions in which neither jaundice nor a clinically recognizable disease of the liver was present. Of significance were the results obtained in 26 patients with rheumatoid arthritis, for 11 gave a 1 plus to 4 plus reaction. One can only conjecture as to the significance of this finding, but it is conceivable that rheumatoid arthritis, being an infectious disorder, may be associated at times with a mild diffuse hepatitis. It is of further interest to note the 4 plus reaction obtained in 3 patients with Gaucher's disease and in 2 with malaria.

Surgical Aspects

From the standpoint of the surgeon, the patients with obstructive jaundice present a distinct operative risk. Postoperative fatalities fall into two general headings—namely, hemorrhage and "liver death." Until recent years, death from postoperative hemorrhage was not uncommon. This is now known to result from a deficiency of prothrombin in the blood secondary to defective absorption of vitamin K from the intestinal tract. The blood prothrombin should be determined routinely in all patients with jaundice in whom surgery is contemplated; if low, the value should be checked repeatedly. Once the blood prothrombin has been brought to normal levels preoperatively and maintained at these levels postoperatively by adequate vitamin K therapy, the surgeon need no longer fear hemorrhage as a complication.

While the blood prothrombin of most patients with obstructive jaundice responds favorably to vitamin K therapy, a small number (probably less than 10 per cent) fail to show this response in spite of adequate parenteral administration of the vitamin. It is now recognized that this lack of therapeutic response is indicative of severe damage to the parenchymal cells of the liver. Operative interference in such cases should be postponed wherever possible until the hepatic damage is less extreme or, if undertaken, the seriousness of the condition must be fully recognized. Repeated transfusion of fresh blood then becomes

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Of these, we prefer the Takata-Ara reaction since it is the simplest to do and is perhaps the most specific. If other conditions producing a reversal of the albumin/globulin ratio in the serum, such as Bright's disease, multiple myeloma, lymphogranuloma venereum, chronic infections like tuberculosis, etc., can be ruled out, the Takata-Ara reaction may be used in the differential diagnosis of chronic hepatic disorders without jaundice. Bromsulfalein dye retention may occur in chronic passive congestion of the liver, in primary or secondary carcinoma of the liver, and in hepatic cirrhosis, but the Takata-Ara reaction is negative in the first two conditions and almost always positive in the last.

Summary

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from early obstructive jaundice is mentioned. The results of 160 such flocculation tests are given, and the sensitivity of the test in denoting damage to the parenchyma of the liver is indicated. It is concluded that laboratory procedures for studying the functional capacity of the liver are of distinct importance in the diagnosis and treatment of hepatic disease, providing such tests are properly selected and there is a clear understanding of their limitations.

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"FOUNDATION PRIZE" CONTEST ANNOUNCED

Announcement has been made of the prize award contest held under the auspices of the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons by the secretary of the Association, Dr. James R. Bloss. According to Dr. Bloss, the award is to be known as the "Foundation Prize." Rules governing the contest, which closes June 1, are as follows:

1. The award, which shall be known as "The Foundation Prize," shall consist of \$150.
2. Eligible contestants shall include only (a) interns, residents, or graduate students in obstetrics, gynecology, or abdominal surgery, and (b) physicians (with an M.D. degree) who are actively practicing or teaching obstetrics, gynecology, or abdominal surgery.
3. Manuscripts must be presented under a nom-de-plume, which shall in no way indicate the author's identity, to the Secretary of the Association, together with a sealed envelope bearing the nom-de-plume and containing a card showing the name and address of the contestant.
4. Manuscripts must be limited to 5,000 words and must be typewritten, double-spaced, on one side of the sheet. Ample margins should be provided. Illustrations should be limited to such as are

required for a clear exposition of the thesis.

5. The successful thesis shall become the property of the Association, but this provision shall in no way interfere with publication of the communication in the journal of the author's choice. Unsuccessful contributions will be returned promptly to their authors.

6. Three copies of all manuscripts and illustrations entered in a given year must be in the hands of the Secretary before June 1.

7. The award will be made at the Annual Meetings of the Association, at which time the successful contestant must appear in person to present his contribution as a part of the regular scientific program, in conformity with the rules of the Association. The successful contestant must meet all expenses incident to this presentation.

8. The President of the Association shall annually appoint a Committee on Award, which, under its own regulations, shall determine the successful contestant and shall inform the Secretary of his name and address at least two weeks before the annual meeting.

JAMES R. BLOSS, M.D., Secretary
418 Eleventh Street
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TO DISCUSS HEART FAILURE

Dr. Harry Gold, assistant professor of pharmacology, Cornell University Medical College, will discuss "The Management of Heart Failure" at the fifth session of the Refresher Lecture Course in Cardiovascular Diseases, which is being given under the joint auspices of the New York Academy of Medicine and the New York Heart Association, of

the New York Tuberculosis and Health Association. Dr. Gold's talk will be given on Wednesday, February 24, at 4:30 P.M. at the Academy of Medicine, 2 East 103 Street, and is open to all practicing physicians and medical students. Dr. Herbert Chasis, assistant professor of medicine, New York University College of Medicine, will preside.

A NEW APPROACH TO CROSS CYLINDER TESTS

JOSEPH I. PASCAL, M.D., New York City

ONE of the common methods of testing for astigmatism is by the use of some form of line chart, fan chart, clock dial, revolving cross, etc. The principle underlying the use of a line chart test is the fact that the retinal diffusion spot in an astigmatic eye is generally a line or an oval. But under certain conditions the retinal diffusion spot in an astigmatic eye is a circle. Under such conditions the line chart test is inapplicable, but it is precisely here that the cross cylinder test comes in. If the testing conditions are maintained so that the retinal diffusion spot is a circle throughout, then the complete test for astigmatism can be made in the same manner as a test made for a spherical error. The retinal diffusion spot in an astigmatic eye is circular when the astigmatism has been changed, by a sphere if necessary, to equally mixed astigmatism. The diffusion circle which lies about midway in the interval of Sturm is then on the retina, one focal line being in front of the retina and the other about the same distance behind the retina. The sphere which changes every type of astigmatism into equally mixed astigmatism is the so-called equivalent sphere, which generally gives best uncorrected vision.

Let us take a case of 1.00 diopter of astigmatism with the rule and refer our discussion and diagrams to this case. When the condition is changed to one of equally mixed astigmatism, we have 0.50 D. myopia in the vertical meridian and 0.50 D. hyperopia in the horizontal meridian. The retinal diffusion circles indicated by the letters "D.C." in the tables are 0.50 D. in each meridian and are equivalent to the diffusion circles in an eye with a half diopter of spherical error.

With the eye in this condition, the presence of astigmatism and the approximate axis can be ascertained or corroborated by the testing cross cylinder, the effect of which will be seen by reference to the tables. We shall try several powers of cross cylinder, and for the sake of convenience will mention in this discussion only the plus part of the cross cylinder. When the testing cross cylinder is set so that its axes coincide with the principal meridians of the astigmatism, we shall refer to it as a "principal setting." When the testing cross cylinder is set so that its axes are oblique to the principal meridians of the astigmatism, we shall refer to it as an oblique setting. In all cases there are two positions

designated as (A) and (B). In the "principal setting," for example, the plus 0.25 cylinder is at axis 90 in position (A) and at axis 180 in position (B). Of course, at the same time the minus component of the testing cross cylinder, the minus 0.25 C., is at axis 180 in position (A) and at axis 90 in position (B). For the sake of brevity we shall omit the constant mention of this in our discussion.

Table 1 shows the effects of different settings of several cross cylinders in our selected case of 1.00 diopter of equally mixed astigmatism. Twenty degrees off axis means for (A) plus cyl. ax. 70 - cyl. ax. 160, and for (B) plus cyl. ax. 160 - cyl. ax. 70. The same holds for the other angles. Suppose our testing cross cylinder was 0.25 C. ($\neq 0.12$) in the same setting, 20 degrees off axis—that is, plus cylinder axis 70 in position (A) and plus cylinder axis 160 in position (B). The resultant diffusion circles would be in (A) 0.42×0.42 and in (B) 0.60×0.60 , giving a spherical difference of 0.18. If our testing cross cylinder was 0.50 ($\neq 0.25$ C.) similarly set 20 degrees off axis, the resultant diffusion circles are in (A) 0.35×0.35 and in (B) 0.71×0.71 . The difference, which may be termed the spherical difference, S.D., equals 0.36. The patient will naturally prefer position (A), showing the presence of astigmatism and the approximate axis of the cylinder plus axis 70 (or minus axis 160). If our testing cross cylinder was 0.75 ($\neq 0.37$) in the same setting the diffusion circles would be in (A) 0.32×0.32 and in (B) 0.82×0.82 , giving a larger S.D., amounting now to 0.50 D.

While the diffusion spots are circular, the directions of their diameters corresponding to the direction of the resultant principal meridians vary in each case, and are indicated in a few instances in the table, in parentheses. It will be seen from Table 1 that the presence of astigmatism is brought out most readily when the testing cross cylinder is at or near the principal setting. The difference in the size of the diffusion circles is then at a maximum. We must also remember that the areas of the diffusion circles vary with the square of the diameters. For example, the difference in area between two diffusion circles whose diameters in terms of dioptric error are, respectively, 0.25 and 0.75 are as one to nine, whereas the diameters are as one to three. The spherical differences marked "S.D." in the tables refer only to the linear differences of their diameters. If we use a

TABLE 1.—1.00 D. ASTIGMATISM—CHANGED TO EQUALLY MIXED ASTIGMATISM

I. Applying 0.25 Cr. C. (± 0.12 C.)			
1. Twenty degrees off axis (A) + C. ax. 70; (B) + C. ax. 160	{(A) D.C. = 0.42×0.42 (B) D.C. = 0.60×0.60 }	S.D. = 0.18	(5-95°) (86-176°)
2. Ten degrees off axis (A) + C. ax. 80; (B) + C. ax. 170	{(A) D.C. = 0.39×0.39 (B) D.C. = 0.61×0.61 }	S.D. = 0.22	
3. Principal setting (A) + C. ax. 90; (B) + C. ax. 180	{(A) D.C. = 0.37×0.37 (B) D.C. = 0.62×0.62 }	S.D. = 0.25	
II. Applying 0.50 Cr. C. (± 0.25 C.)			
1. Twenty degrees off axis (A) + C. ax. 70; (B) + C. ax. 160	{(A) D.C. = 0.35×0.35 (B) D.C. = 0.71×0.71 }	S.D. = 0.36	(14-104°) (77-167°)
2. Ten degrees off axis (A) + C. ax. 80; (B) + C. ax. 170	{(A) D.C. = 0.28×0.28 (B) D.C. = 0.74×0.74 }	S.D. = 0.46	
3. Principal setting (A) + C. ax. 90; (B) + C. ax. 180	{(A) D.C. = 0.25×0.25 (B) D.C. = 0.75×0.75 }	S.D. = 0.50	
III. Applying 0.75 Cr. C. (± 0.37 C.)			
1. Twenty degrees off axis (A) + C. ax. 70; (B) + C. ax. 160	{(A) D.C. = 0.32×0.32 (B) D.C. = 0.82×0.82 }	S.D. = 0.50	
2. Ten degrees off axis (A) + C. ax. 80; (B) + C. ax. 170	{(A) D.C. = 0.21×0.21 (B) D.C. = 0.86×0.86 }	S.D. = 0.65	
3. Principal setting (A) + C. ax. 90; (B) + C. ax. 180	{(A) D.C. = 0.12×0.12 (B) D.C. = 0.87×0.87 }	S.D. = 0.75	
IV. Applying 1.00 Cr. C. (± 0.50 C.)			
1. Twenty degrees off axis (A) + C. ax. 70; (B) + C. ax. 160	{(A) D.C. = 0.34×0.34 (B) D.C. = 0.94×0.94 }	S.D. = 0.60	
2. Ten degrees off axis (A) + C. ax. 80; (B) + C. ax. 170	{(A) D.C. = 0.17×0.17 (B) D.C. = 0.98×0.98 }	S.D. = 0.81	
3. Principal setting (A) + C. ax. 90; (B) + C. ax. 180	{(A) D.C. = zero (B) D.C. = 1.00×1.00 }	S.D. = 1.00	
V. Applying 1.50 Cr. C. (± 0.75 C.)			
1. Twenty degrees off axis (A) + C. ax. 70; (B) + C. ax. 160	{(A) D.C. = 0.49×0.49 (B) D.C. = 1.18×1.18 }	S.D. = 0.69	
2. Ten degrees off axis (A) + C. ax. 80; (B) + C. ax. 170	{(A) D.C. = 0.33×0.33 (B) D.C. = 1.23×1.23 }	S.D. = 0.90	
3. Principal setting (A) + C. ax. 90; (B) + C. ax. 180	{(A) D.C. = 0.25×0.25 (B) D.C. = 1.25×1.25 }	S.D. = 1.00	

stronger cross cylinder, up to a certain point the difference in the size of the diffusion circles in positions (A) and (B) will be more marked.

In general, the difference in the size of the diffusion circle in positions (A) and (B), when testing for the presence of astigmatism and the approximate axis, depends upon three factors: (1) the amount of astigmatism, (2) the full strength of the cross cylinder, and (3) the angle at which the testing cross cylinder is set. The stronger the testing cross cylinder, as long as it is less than the amount of astigmatism, the more marked the difference between (A) and (B). The difference reaches its maximum when the testing cross cylinder equals the amount of astigmatism. In all these cases the difference in the size of the diffusion circles between (A) and (B) in the principal setting is equal to the full strength of the testing cross cylinder.

That is, when the testing cross cylinder is a quarter diopter, 0.25 C. (± 0.12 C.), the difference in the size of the diffusion circles is 0.25. When the testing cross cylinder is 1.00 D., 1.00 C. (± 0.50 C.), the difference will be 1.00 D. This is the limit in our case, since the total amount of the astigmatism is 1.00 D. The difference in the size of the diffusion circles can never be

more than the full amount of astigmatism. If a stronger testing cross cylinder is used, say 1.50 C. (± 0.75 C.), the difference in the size of the diffusion circle will still be 1.00 D. The practical bearing of this is to use a stronger rather than a weaker cross cylinder, preferably one approaching the amount of astigmatism. The best results are obtained when the testing cross cylinder is equal to the amount of astigmatism. In this case the comparison is most easily made as one D.C. is zero. The comparison is therefore made between a clear image and a blurred image rather than between two images, both blurred, but to an unequal extent.* In an oblique setting the difference becomes less and diminishes as the obliquity increases, until, when the obliquity is 45 degrees, there is no difference at all.

After the presence of the astigmatism and the approximate axis have been determined or verified, we then determine the accurate axis. The use of the cross cylinder for accurate axis position is considered by many its most valuable feature. This part of the test is also best made when the retinal diffusion spots in the two positions are of the same type—that is, circular. Otherwise, a comparison of the two positions is often

* The amount of blur in the better position may be judged from the visual acuity obtained.

TABLE 2.—EFFECT OF USING 0.50 DIOPTER CORRECTING CROSS CYLINDER (± 0.25)

Corr. Cr. C. 0.50 C. (± 0.25 C.) 20 degrees off axis; + C. ax. 70 - C. ax. 160			
1. Test. Cr. C. 0.50 C. (± 0.25 C.) axes 45° either way; (A) + C. ax. 25; (B) + C. ax. 115	(A) D.C. = 0.59 \times 0.59 (B) D.C. = 0.15 \times 0.15	S.D. = 0.44	(19-109°) (85-175°)
2. Test. Cr. C. 0.75 (± 0.37 C.) axes, etc.			
(A) D.C. = 0.70 \times 0.70	(B) D.C. = 0.16 \times 0.16	S.D. = 0.54	
3. Test. Cr. C. 1.00 C. (± 0.50 C.) axes, etc.			
(A) D.C. = 0.83 \times 0.83	(B) D.C. = 0.22 \times 0.22	S.D. = 0.61	
4. Test. Cr. C. 1.50 (± 0.75 C.) axes, etc.			
(A) D.C. = 1.08 \times 1.08	(B) D.C. = 0.44 \times 0.44	S.D. = 0.64	
Corr. Cr. C. 0.50 C. (± 0.25 C.) 10 degrees off axis; + C. ax. 80 - C. ax. 170			
1. Test. Cr. C. 0.50 C. (± 0.25 C.) axes 45° either way; (A) + C. ax. 35; (B) + C. ax. 125	(A) D.C. = 0.48 \times 0.48 (B) D.C. = 0.23 \times 0.23	S.D. = 0.25	
2. Test. Cr. C. 0.75 (± 0.37 C.) axes, etc.			
(A) D.C. = 0.58 \times 0.58	(B) D.C. = 0.29 \times 0.29	S.D. = 0.29	
3. Test. Cr. C. 1.00 (± 0.50 C.) axes, etc.			
(A) D.C. = 0.71 \times 0.71	(B) D.C. = 0.39 \times 0.39	S.D. = 0.32	
4. Test. Cr. C. 1.50 (± 0.75 C.) axes, etc.			
(A) D.C. = 0.95 \times 0.95	(B) D.C. = 0.62 \times 0.62	S.D. = 0.33	
Corr. Cr. C. 0.50 (± 0.25 C.) 5 degrees off axis; + cyl. ax. 85 - C. ax. 175			
1. Test. Cr. C. 0.50 C. (± 0.25 C.) axes 45° either way; (A) + C. ax. 40; (B) + C. ax. 130	(A) D.C. = 0.42 \times 0.42 (B) D.C. = 0.29 \times 0.29	S.D. = 0.13	
2. Test. Cr. C. 1.00 (± 0.50 C.) axes, etc.			
(A) D.C. = 0.64 \times 0.64	(B) D.C. = 0.48 \times 0.48	S.D. = 0.16	
3. Test. Cr. C. 1.50 (± 0.75 C.) axes, etc.			
(A) D.C. = 0.87 \times 0.87	(B) D.C. = 0.70 \times 0.70	S.D. = 0.17	

TABLE 3.—EFFECT OF USING DIFFERENT POWERS OF CORRECTING AND OF TESTING CROSS CYLINDERS

Corr. Cr. C. 0.25 (± 0.12 C.) 10 degrees off axis; + C. ax. 80 - C. ax. 170			
1. Test. Cr. C. 0.50 C. (± 0.25 C.) axes 45° either way; (A) + C. ax. 35; (B) + C. ax. 125	(A) D.C. = 0.54 \times 0.54 (B) D.C. = 0.36 \times 0.36	S.D. = 0.18	(15-105°) (74-164°)
2. Test. Cr. C. 1.00 C. (± 0.50 C.) axes, etc.			
(A) D.C. = 0.75 \times 0.75	(B) D.C. = 0.48 \times 0.48	S.D. = 0.27	(21-111°) (58-148°)
3. Test. Cr. C. 1.50 C. (± 0.75 C.) axes, etc.			
(A) D.C. = 0.98 \times 0.98	(B) D.C. = 0.68 \times 0.68	S.D. = 0.30	(27-117°) (50-140°)
Corr. Cr. C. 0.75 C. (± 0.37 C.) 10 degrees off axis; + C. ax. 80 - C. ax. 170			
1. Test. Cr. C. 0.50 C. (± 0.25 C.) axes 45° either way; (A) + C. ax. 35; (B) + C. ax. 125	(A) D.C. = 0.43 \times 0.43 (B) D.C. = 0.13 \times 0.13	S.D. = 0.30	
2. Test. Cr. C. 1.00 (± 0.50 C.) axes, etc.			
(A) D.C. = 0.68 \times 0.68	(B) D.C. = 0.34 \times 0.34	S.D. = 0.34	
3. Test. Cr. C. 1.50 C. (± 0.75 C.) axes, etc.			
(A) D.C. = 0.93 \times 0.93	(B) D.C. = 0.58 \times 0.58	S.D. = 0.35	
Corr. Cr. C. 1.00 C. (± 0.50 C.) 10° off axis; + C. ax. 80 - C. ax. 170			
1. Test. Cr. C. 0.50 C. (± 0.25 C.) axes 45° either way; (A) + C. ax. 35; (B) + C. ax. 125	(A) D.C. = 0.42 \times 0.42 (B) D.C. = 0.09 \times 0.09	S.D. = 0.33	
2. Test. Cr. C. 1.00 C. (± 0.50 C.) axes, etc.			
(A) D.C. = 0.67 \times 0.67	(B) D.C. = 0.34 \times 0.34	S.D. = 0.33	
Corr. Cr. C. 1.00 (± 0.50 C.) 5° off axis; + C. ax. 85 - C. ax. 175			
1. Test. Cr. C. 0.50 (± 0.25 C.) axes 45° either way; (A) + C. ax. 40; (B) + C. ax. 130	(A) D.C. = 0.34 \times 0.34 (B) D.C. = 0.17 \times 0.17	S.D. = 0.17	
2. Test. Cr. C. 1.00 (± 0.50 C.) axes, etc.			
(A) D.C. = 0.59 \times 0.59	(B) D.C. = 0.41 \times 0.41	S.D. = 0.18	

difficult. The patient may say that he sees both images blurred but in a different way. This is understandable because the retinal diffusion spots are different in the two positions, consisting of ovals of different orientation. But if the test is made so that the retinal diffusion spot is always a diffusion circle, merely differing in size in the two positions of the cross cylinder, it becomes easier for the patient to compare the two positions. The difference is comparable to the effect of changing the spherical power in a spherical error. This method is therefore in a sense a spherical approach to astigmatic corrections. We get this effect most easily if we make use of correcting cross cylinders, as suggested by Dr. Frank B. Smart, as well as of testing cross cylinders.

Suppose our initial test as shown in Table 1, with any of the cross cylinders, was applied 20 degrees off axis. Our approximate finding was then plus cylinder axis 70, -cylinder axis

160. Suppose we now insert a half diopter, 0.50 D. (± 0.25 C.), correcting cross cylinder with the plus cylinder axis 70, minus cylinder axis 160, and apply our testing cross cylinders at 45 degrees either way. This gives again in each case two positions which we call again (A) and (B). Table 2 shows the effect of using 0.50 diopter correcting cross cylinder (± 0.25), (this is probably the most serviceable cross cylinder to be used), with different powers of testing cross cylinders. In every case as position (B) gives the smaller diffusion circle and therefore better vision, the correcting cross cylinder has to be turned, the plus cylinder axis toward 90 until there is no difference.

Table 3 shows the effect of using different powers of correcting cross cylinders at several angles of obliquity and also different powers of testing cross cylinders, axes 45 degrees either way. It may be emphasized that throughout the test the patient compares images made up

TABLE 4—CORRECTING CROSS CYLINDER 0.50, OFF AXIS—
TESTING CROSS CYLINDER 1.00, 45 DEGREES AWAY

I. 20° off axis	
1. Astig. 0.50 D.	
S.D. = 0.66 - 0.35 = 0.31	
(0.42 - 0.11 = 0.31)	
2. Astig. 1.00 D.	
S.D. = 0.83 - 0.22 = 0.61	
3. Astig. 1.50 D.	
S.D. = 1.03 - 0.34 = 0.69	
(1.26 - 0.33 = 0.93)	
4. Astig. 2.00 D.	
S.D. = 1.25 - 0.54 = 0.71	
(1.67 - 0.44 = 1.23)	
II. 10° off axis	
1. Astig. 0.50 D.	
S.D. = 0.59 - 0.41 = 0.18	
(0.21 - 0.04 = 0.17)	
2. Astig. 1.00 D.	
S.D. = 0.71 - 0.39 = 0.32	
(0.42 - 0.08 = 0.34)	
3. Astig. 1.50 D.	
S.D. = 0.88 - 0.51 = 0.37	
(0.63 - 0.12 = 0.51)	
4. Astig. 2.00 D.	
S.D. = 1.09 - 0.71 = 0.38	
(0.85 - 0.17 = 0.68)	
III. 5° off axis	
1. Astig. 0.50 D.	
S.D. = 0.54 - 0.46 = 0.08	
(0.17 - 0.08 = 0.09)	
2. Astig. 1.00 D.	
S.D. = 0.64 - 0.48 = 0.16	
(0.34 - 0.17 = 0.17)	
3. Astig. 1.50 D.	
S.D. = 0.79 - 0.62 = 0.17	
(0.51 - 0.25 = 0.26)	
4. Astig. 2.00 D.	
S.D. = 1.00 - 0.80 = 0.20	
(0.68 - 0.33 = 0.35)	

of the same type of diffusion spots—namely, diffusion circles of different sizes.

It can be seen from a study of the tables that generally as the cylinder increases in strength, both the correcting and the testing cylinder, the diffusion circles increase and coincidentally the spherical difference increases. The latter increase, however, is sometimes very slight and more than offset by the relatively large increase in the diffusion circles. For example, in Table 3 in 2 and 3 in the second series we find that by using a 1.00 diopter testing cross cylinder we have S.D. = 0.34, which is the difference between diffusion circle diameters of 0.68 and 0.34. By using a 1.50 testing cross cylinder we get S.D. = 0.35, which is the difference between diffusion circle diameters of 0.93 and 0.58. The same spherical difference is more striking when it is the difference between two small diffusion circles than when it is the difference between two large diffusion circles.

The size of the spherical difference, which is the principal element in comparing position (A)

with position (B), depends upon four factors (1) the amount of astigmatism, (2) the strength of the correcting cross cylinder, (3) the obliquity of the correcting cross cylinder, and (4) the strength of the testing cross cylinder. The factor of obliquity is the simplest to note. The greater the obliquity of the correcting cross cylinder, the greater the difference in size between the diffusion circles in positions (A) and (B). But the other three factors are mutually interdependent and do not follow a simple relationship.

Table 4 shows the results of using a fixed combination of a 0.50 D. *correcting* cross cylinder and a 1.00 D. *testing* cross cylinder for determining the axis in different amounts of astigmatism and at different angles of obliquity, and also the results from using a more effective combination. The latter findings constitute the figures in parentheses for S.D. in Table 4. It is evident that the fixed combination is not equally effective, nor generally most effective for the different conditions. However, this combination produces sufficient spherical differences for ready comparison, especially when the angle of obliquity is large, say, 20 degrees, and to a less extent when the angle is 10 degrees. The best combination to be used varies in each case and depends upon various factors.

The power of the testing cross cylinder which is most effective varies with the angle of obliquity, the amount of astigmatism, and the power of the correcting cross cylinder. When the axis is markedly off, say, about 20 degrees or so, the best arrangement generally is a testing cross cylinder which is twice the power of the correcting cross cylinder and is itself equal to the amount of astigmatism; e.g., for an astigmatism of 1.00 D. a correcting cross cylinder of 0.50 D. and a testing cross cylinder of 1.00 D. When the axis is nearly right—that is, to within 10 degrees or, still better, to within 5 degrees, the best arrangement is just the reverse—a testing cross cylinder half the power of the correcting cross cylinder, the latter being equal to the amount of astigmatism—i.e., for an astigmatism of 1.00 D., a correcting cross cylinder of 1.00 and a testing cross cylinder of 0.50. But as one does not know at the beginning of the test what the amount of astigmatism is, unless this has already been determined approximately by other tests, the best procedure is to start with a low power correcting cross cylinder and a higher power, say, twice as strong, testing cross cylinder. Such a combination is a 0.50 D. correcting cross cylinder with a 1.00 D. testing cross cylinder. This will determine the right axis at least very nearly and enough to measure the amount of astigmatism. After the amount has been de-

terminated, a final check on the axis is made by using a testing cross cylinder *half* the strength of the correcting cross cylinder.

After determining the axis, the final step is to determine the amount of astigmatism. Table 5 shows the effect of using 0.25 (± 0.12) testing cross cylinder to determine the correct cylinder power. It is better to think of (A) and (B) now as (A) *plus* cylinder axis 90 and (B) *minus* cylinder axis 90. If (A) is better, more cylinder is required. If (B) is better, less cylinder is required.

Starting with a correcting cross cylinder of 0.25 (± 0.12 C.), we set it at $+0.12$ C. ax. 90 -0.12 C. ax. 180, and apply the testing cross cylinder, say, 0.25 C. (± 0.12 C.), in two positions, (A) $+C$. ax. 90, and (B) $-C$. ax. 90. It is seen from Table 5 that position (A) is better than position (B). A stronger cross cylinder is then inserted, 0.50 C. (± 0.25 C.), and the test repeated. Again (A) is better than (B). So a still stronger cross cylinder is inserted, now 0.75 C. (± 0.37 C.), and the test repeated. Again (A) is preferred, and a 1.00 C. (± 0.50 cyl.) is inserted and the test repeated. Now (A) and (B) give the same results, so the cylinder is right in amount. Suppose we had somehow inserted a cylinder that was too strong, say, 1.25 C. (± 0.62 C.), then, repeating the test, we find now that (B) is better than (A), which shows that less cylinder is required. Fewer changes, of course, are required if the cylinders are changed in larger intervals.

The difference in the size of the diffusion circles between (A) and (B), as long as the cylinder amount is incorrect, equals the strength of the testing cross cylinder, until the residual astigmatism from an undercorrection or an overcorrection is less than the strength of the testing cross cylinder. Then the spherical difference equals the amount of the astigmatism. Thus, if a 0.50 testing cross cylinder is used, the spherical difference is 0.50 until step 4, Table 5, when it is 0.25 because the residual astigmatism now is only 0.25. A stronger testing cross cylinder is therefore preferable, especially in the early stage of the test.

TABLE 5

		Astigmatic Error	
		1.00 D	
		Test Cr. C. 0.25 C. (± 0.12 C.)	
		(A) $+C$ ax. 90, (B) $-C$ ax. 90	
1	Corr. Cr. C. 0.25 C.		
	$+0.12$ C. ax. 90 -0.12 C. ax. 180		
	(A) D.C. = 0.25×0.25		S.D. = 0.25
	(B) D.C. = 0.50×0.50		
2	Corr. Cr. C. 0.50 (± 0.25 C.)		
	(A) D.C. = 0.12×0.12		S.D. = 0.25
	(B) D.C. = 0.37×0.37		
3	Corr. Cr. C. 0.75 C.		
	(A) D.C. = zero		S.D. = 0.25
	(B) D.C. = 0.25×0.25		
4	Corr. Cr. C. 1.00 C. (± 0.50 C.)		
	(A) D.C. = 0.12×0.12		S.D. = zero
	(B) D.C. = 0.12×0.12		
5	Corr. Cr. C. 1.25 C. (± 0.62 C.)		
	(A) D.C. = 0.25×0.25		S.D. = 0.25
	(B) D.C. = zero		
		Test Cr. C. 0.50 C. (± 0.25 C.)	
		(A) $+C$ ax. 90, (B) $-C$ ax. 90	
1	Corr. Cr. C. 0.25		
	$+0.12$ C. ax. 90 -0.12 C. ax. 180		
	(A) D.C. = 0.12×0.12		S.D. = 0.50
	(B) D.C. = 0.62×0.62		
2	Corr. Cr. C. 0.50		
	(A) D.C. = zero		S.D. = 0.50
	(B) D.C. = 0.50×0.50		
3	Corr. Cr. C. 0.75 C.		
	(A) D.C. = 0.12×0.12		S.D. = 0.25
	(B) D.C. = 0.37×0.37		
4	Corr. Cr. C. 1.00		
	(A) D.C. = 0.25×0.25		S.D. = zero
	(B) D.C. = 0.25×0.25		

Summary

It is possible to apply cross cylinders for testing and correcting astigmatism in the same way as spherical lenses are used for testing and correcting hyperopia and myopia. The same charts can be used and, what is especially significant, the changes produced in the patient's retinal images are the same as those produced during a test for a spherical error. The procedure is to change the astigmatism to equally mixed astigmatism and maintain it thus throughout the test by the use of *correcting* cross cylinders. In this way, the patient will have to compare images made up of diffusion circles of different sizes, exactly as he does during a test with spherical lenses for a spherical error.

NUTRITION LECTURE

The Mary Swartz Rose Memorial Lecture will be delivered this year by Dr. Henry C. Sherman, of Columbia University. Dr. Sherman, whose subject will be "The Concept and Practical Significance of Internal Environment," will speak at 8:15 P.M.,

February 17, at the Academy of Medicine, 2 East 103 Street. The meeting is sponsored by the Greater New York Dietetic Association, whose purpose in arranging the lecture is to make available information on trends in the field of nutrition.

THE PSYCHIATRIST AND THE BEHAVIOR PROBLEM

ALBERT B. SIEWERS, M.D., Syracuse, New York

THIS communication is a psychiatrist's attempt to formulate an approach to the challenge of the behavior problem child. This report is based upon the writer's experience as psychiatrist to the Department of Education, and to outpatient clinics at the Syracuse Free Dispensary and the Syracuse State Psychopathic Hospital. In all these places cooperation with and by the pediatrician is very close.

The practice of medicine today is no longer concerned solely with the treatment of disease. It is concerned really with the preservation of good health, and health is considered to be not the absence of disease, but a positive sense of well-being. Medicine recognizes in many fields so-called subclinical types in which no actual disease is present, but in which function is disturbed so that radiant health is absent. In like manner, psychiatry is no longer concerned entirely with the treatment of people who are mentally ill. The main purpose of psychiatry has become to furnish for everyone the fullest life possible for that particular individual. The person who is mentally healthy has learned to meet life squarely. He has formed good habits of thinking, reasoning, and concentration; he possesses confidence, self-assurance, and generosity. He has a reasonable understanding and control of his emotions and, all in all, is able to adjust himself to his environment. Psychiatrists do not treat *cases* of dementia praecox, involuntal melancholia, psychoneurosis, or bad children, but, rather, they treat *people* who have dementia praecox, or people who are depressed, people who have neuroses, or children who misbehave. In addition to treatment, there is also definite concern with the prevention of mental illness and the preservation of good health.

For purposes of study, rather than to establish any uniform classification, a psychiatrist who deals largely with children can roughly divide the cases that come to him into three groups:

First, there are those who are born into the world different from the majority of us, as far as physical or mental characteristics are concerned. By far the largest number in this group are those whom we know as backward or defective. These in turn are divided as to educability and trainability. We will take up this point again later on.

Second, there are those who suffer disturbances following diseases, particularly, we might say, encephalitis, poliomyelitis, glandular disturbances, and acute infections.

The third group would be those who are behavior problems, or who show conduct which disturbs parents or teachers so much that they ask for help.

1. Considering the first group, the so-called defectives, the psychiatrist must study the individual as to his educability or trainability, and then study the situation from which the child comes so that all of the resources of the family and of the community can be utilized to help the child. The primary aim is not so much to teach him the "three R's," as it is to teach him how to get along. One of the great difficulties in the regular classroom group is the matter of competition. The defective child, if he is able to compete physically, is unable to do so intellectually or emotionally, and if he is put in the group where he can properly compete intellectually, he outstrips the others physically. Therefore, with the poor emotional development which he has, he soon becomes a behavior problem. Of these we often hear, "He wouldn't do a thing to hurt anybody," but he doesn't know his own strength, and when he plays with smaller children he invariably hurts them.

It is necessary to use the resources of the school system and of the whole community in order to have this child so placed that he will obtain the maximum advantages from all that society has to offer. We do not have to think in terms of placement in an institution so much as we do in terms of educating the family to their particular problem. Often the psychiatrist is called upon to inform parents of children just entering school that they do not belong to the group in which they are placed. It is then that the parents ask why they have not been told before, as the child has been under the care of a pediatrician since birth. It is likely that the pediatrician has been busy checking the physical growth and has either overlooked the mental retardation or has felt that he should be asked about it rather than "stick his neck out" by volunteering information. It seems to me that the training of a pediatrician should include a great deal of consideration of the question of how to approach the parents of such children.

Though the majority of this group are mental defectives, some have other congenital disabilities. Time would not permit separate con-

sideration of the children who are spastic and not defective, or those with choreo-athetosis, or those who are deaf and/or dumb. The principles involved in the management of these cases and their families are, by and large, the same as those that we have already outlined. We probably also should include such conditions as dwarfism or glandular obesity, as here, too, we are concerned with the medical treatment of the patient and the management of the family.

2. Psychiatrists who have seen children of school age unable to do work and who, according to psychologic tests, are subnormal, have been prone to consider that probably these children have always been below normal. We have often glibly said that every such child presents a history of having been dropped by his nurse or having suffered some injury to his head. However, as psychiatrists have learned more, and consequently become more humble, good medical-social histories have shown that a considerable number of these children have had possibly a mild encephalitis, either of the epidemic type or in association with mumps, measles, whooping cough, and the like. I have in mind a boy now 14, who had a psychologic examination at the age of 9, when the quality of his work first began to fall off. On account of changes in schools and changes in teachers, additional psychologic tests have since been given with each change in the school term. According to the original test, this boy had an I.Q. of 100; six months later it was 98; next term it was 95; and so on, until, according to our tests, he has an I.Q. of about 75 at the present time. It can readily be seen that this boy had not increased his capacity to learn since he was 9 years old. At first glance, there was nothing unusual in his history. He came from a rather large family and had the usual childhood diseases. A more searching history, however, revealed that when the boy had mumps at about the age of 9 he "had it different and harder than the other children in the family and in the neighborhood." Further study revealed a few vague neurologic signs and also some glandular disturbances similar to pituitary dwarfism. Under medical treatment for post-encephalitis, this boy's behavior improved, and he is beginning to make a much better emotional adjustment. There has, however, been no change in his apparent capacity to learn.

3. Our next group, which also includes the behavior problems, encompasses the psychoneuroses and the so-called borderline psychosomatic cases. This group is very large and calls for a consideration of the general approach as well as for illustration by particular cases. Phobias and obsessions might outwardly seem a far cry from stealing and truancy, or from bladder and intes-

tinal upsets, yet all these and many more have been attributed to a common cause. This common cause is not a pin-point sort of thing, but rather a broad base variously spoken of as (1) the evasion of reality, (2) anxiety, or (3) insecurity. Whatever the organ or function fixed upon, the symptoms or behavior are likely to be accompanied by anxiety. We all know the symptoms of acute anxiety. We have all felt a quickening of the pulse and increased respiration when called upon to handle an emergency. These signs might be momentarily distressing, but they really indicate better preparation on the part of nature for doing the particular job. It is only when this anxiety becomes chronic or so marked that a paralysis of action or other panic results that we become concerned. *A good many parents themselves have a sort of chronic anxiety*, and this may be reflected in the child as insecurity, showing through the medium of behavior or disease symptoms. These symptoms are often severe enough to make one suspect organic disease or at least to conduct sufficient medical examination to rule out its presence. It therefore becomes apparent that treatment must be directed at the force behind the production of the symptoms or behavior. The child's fears of insecurity must be relieved, and one of the big factors in this is education of the parents. Now, let us assume that the child has a stomach-ache, and that careful study by a pediatrician reveals no organic basis for this but, instead, shows an emotional one. Is it quite fair to let the child and his parents believe that it is just his stomach that is misbehaving? This is really a reaction of the total personality. If we think no further than the stomach-ache, then maybe it is all right to give a bitter tonic or even some nauseating dose to discourage the stomach's misbehavior. I feel, though, that if we are to treat such a condition rationally it would involve a thorough knowledge of the background of the child and the development of the symptom and that the treatment should be directed at the adjustment of the whole individual, not just to his stomach.

A child who had attended a party the evening before became sick on his way to school the following morning. It so happened that by returning home and staying there that day he missed a quiz. The next time a quiz was to be held the same thing happened. In the first instance, the mother treated the child herself. The second time she called the doctor, who attempted to assure her that it was nothing to be concerned about. When, however, it happened a third time, the result was an illustration of the old saw that bad patients make bad doctors. The mother, in her anxiety, pestered the physician. She was fearful that Johnny would grow up to be like the

rest of the Joneses and have a weak stomach. The doctor had no further treatment to suggest, and when the mother insisted on an x-ray, he arranged for such an examination. This did not have the salubrious result that was expected, but tended, in spite of the reports, to fix in the mother's mind the idea that the child was to go through life with a weak stomach.

In this particular case, the child proved easier to deal with than did the mother. In direct contact with the psychiatrist, the child began to "open up," and the trend of his talk showed that his mother's anxiety bothered him considerably. When the mother insisted upon seeing the psychiatrist after the interview, the boy became anxious lest the psychiatrist expose him. Subsequent interviews were so arranged that the boy could be assured that this would not happen. In fact, the mother was not allowed in the office at all, but was seen at an entirely separate time. It was not long before the boy expressed his interpretation of the situation in about this manner: "I guess it's the devil or something always inside of me that makes this thing happen. I'd like to get rid of it. Mama still has hers because she's always doing the things like I have done." The mother was helped, at least to the point where she no longer continually suggested that the boy was ill. (He was an only child and the mother was really expending all her emotion on him.) Further back in this picture was a maladjustment between the mother and father which, as a result of these interviews, began to clear up. The security of the whole family was improved. These parents were cooperative and intelligent, and they were able, with such help as was given them, to make changes in their adjustments to each other and to their own families so that treatment really extended into the third generation.

In the matter of behavior problems, simple attention-getting behavior is often overcome by pointing out to the parents the need of the child for attention and having them give attention to the desirable things he does. This gives him a feeling of security and leads to better behavior. All of us know the importance of having a definite objective when we do feel anxiety, and the same plan may be applied within the family where there is anxiety and attention-getting behavior. The mother can be shown the value of having definite tasks for the child. In these days this requires a little more *ingenuity than formerly*, but hardly any child able to run around is incapable of learning to put away his own toys and clothes. Tasks, of course, should be assigned as a part of a cooperative procedure. Endeavors in this direction are doomed to failure if the mother tries to use a task as a reward or as praise for the

child one day and as punishment another.

Rules will never take the place of thinking, and the psychiatrist must be a detective who traces down contributing factors and finds out how they can be modified. This results in the development of a plan, vague at first, but more definite as the study goes on. We cannot afford to overlook any detail, and I cannot stress too strongly the need of a very comprehensive medical-social history. It is almost impossible to do this work single-handed. The psychiatric social worker occupies a key position, as does the pediatrician. In fact, there is no reason why the pediatrician could not also be the psychiatrist. And as an arsenal we have the resources of the family, the school, and the community. The psychiatrist, I think, is the logical one to coordinate these forces.

In 88 reporting juvenile courts of the United States 21,000 children were seen for stealing during 1930. We realize that there are innumerable petty thefts in the home, in the school, and in the neighborhood that are not reported to anyone. Therefore, it can be said that stealing is not an uncommon behavior problem, but many of these thefts are based simply upon the desire for possession, and maybe should not even be called stealing. There are, however, cases of stealing which definitely belong to the classification of kleptomania, and these are recognized by the fact that even if the stealing is left out of the picture there are still other personality difficulties. The child, himself, with encouragement in a psychiatric interview, will often analyze his own stealing in such a way as to remove the factors that lead up to it.

I should like to mention two cases of stealing that were acute and which were attended by other personality difficulties. Another reason for mentioning them is that they cleared up so quickly. One was in a girl who was adopted and whose parents attempted to deceive her about this. The child found out from other sources, and then trouble began. A frank explanation of the state of affairs seemed all that was needed. The other girl stole and associated with undesirable companions. It turned out that these undesirable companions were the only other girls she knew who had no allowance. The mother, who was a most distrusting person, got most of the attention, and the problem promptly cleared up.

Summary

In this presentation we have emphasized that the aim of psychiatry is the fullest life possible for each individual. We have considered those who are handicapped congenitally, those who suffered handicaps as a result of intercurrent disease, and the psychosomatic, psychoneurotic, and behavior problem child. The indicated

treatment is to learn as much as possible about the whole situation, rather than about the single individual. Treatment is directed at modifying the whole situation, and the individual is considered as a sick personality rather than one who has a part of him sick. We cannot be content with saying that a person has a sick stomach. If he does have, we must realize that he is sick all over. In like manner, sick individuals mean sick families. Deception and surprise as methods of treatment are useful only as symptomatic treatment and are usually used because of ignorance of the fact that only a symptom is being dealt with or because we lack facilities for knowing and modifying the whole situation.

Discussion

Dr. T. W. Brockbank, *New York City*—Dr. Siewers' paper has covered many aspects of his topic in a concentrated manner and in all too short a time to do the subject full justice. In the short time at his disposal he has not been able to go deeply into the emotional ramifications often found in behavior problems, nor does this seem to be necessary for the purpose of the paper. We may not be inclined to concur with his working classification of behavior problems, but such a classification does serve the purpose of simplifying his presentation.

Our clinic work with children over the past ten or fifteen years has provided a humbling influence for most psychiatrists engaged in this field. We have found that the social worker has a lot to contribute to our studies and also that the contribution of the psychologist is practically indispensable. Dr. Siewers has not emphasized this latter point as much as I feel it deserves.

Another point, I believe, should be clarified. I am sure Dr. Siewers did not wish to convey the impression that the pediatrician without psychiatric training could or should take care of the behavior problems of children. Today the diagnosis and therapy of such problems should be in the hands of the psychiatrist. We have found that the roots of behavior problems run deep, not only in the child himself but also in those close to him, and they cannot be eradicated by a placebo or some local organic therapy.

I should like to endorse Dr. Siewers' successful handling of the child in his environmental setting as distinct from that approach which attempts to treat the child alone.

There are divergencies of opinion concerning the proper therapeutic methods to employ in the handling of the uncomplicated behavior problem—Dr. Siewers' group 3. I quite agree with him that the environment of the child should be tapped, sounded, and worked with if we wish to carry out a practical job with most of these children. Excluding a research approach, I think it is asking too much of psychiatry to deal with the child alone in the direct treatment, to the exclusion of all other approaches. Even the most rabid and radical psychotherapists admit this when they select their cases for treatment.

The careful selection of cases is done in many clinics in order chiefly to pick out those who will respond to direct psychotherapy. If we are willing to work with the parents, as well as with other environmental factors of many of those children who are rejected for direct psychotherapy, we will find that they, too, will respond to our efforts although the approach is not a purely psychiatric one.

In conclusion, Dr. Siewers' paper is a good practical contribution to the discussion of the handling of the behavior problem in children.

MEDICAL EDUCATION CONGRESS DATES

The Thirty-Ninth Annual Congress on Medical Education and Licensure, sponsored by the Council on Medical Education and Licensure of the American Medical Association, will be held at the Palmer House, Chicago, February 15 and 16, the *J.A.M.A.* announces in its January 23 issue. The Federation of State Medical Boards of the United States will participate in the congress. Discussing problems to be brought before the congress, the *Journal* reports:

"The mobilization of the medical profession for service to the armed forces and to civilians and the maintenance of production of physicians have been fraught with many difficulties. The medical schools of the country have voluntarily reduced the period required for the curriculum of the medical school from four to three years. The required pre-medical college course has been reduced to two academic years. Now the War Manpower Commission and other federal agencies have formulated a coordinated program looking to the satisfactory

training of an adequate number of physicians to meet both the military and the civilian needs The seriousness of the many problems involved . . . emphasizes the importance of the Annual Congress on Medical Education and Licensure. . . . One of the greatest problems involved in the mobilization of the medical profession is the meeting of changing civilian and industrial needs. This calls for the relocation of many physicians and the consequent adjustment of state licensure regulations. The program, including as it does addresses by President Elliott, chief of the Professional and Technical Employment and Training Division of the War Manpower Commission, General Dalton, of the U.S. Army, representatives of the Office of Procurement and Assignment and the Surgeon Generals of the U.S. Army, the U.S. Navy, and the U.S. Public Health Service, should go far toward clarifying the details of the various programs involving the whole field of medicine in the war."—*A.M.A. News*, January 21

OSTEOID-OSTEOMA

Report of Five Cases

SAMUEL KLEINBERG, M.D., New York City

OSTEOID-osteoma, although relatively frequent in occurrence, is not generally well known. Its easy surgical removal from most locations where it is found and the invariable postoperative cure probably account for the fact that, although many cases have undoubtedly been operated upon in the past, there has not been an adequate interest in the exact nature of this bone lesion. It has undoubtedly often been mistaken for either a nonsuppurative sclerosing osteomyelitis, so-called Garre's disease, or an isolated bone abscess—that is, a Brodie's abscess without frank pus formation. In recent years Jaffe^{1,2,3} and his associates at the Hospital for Joint Diseases have studied this subject and convinced themselves and many others that the lesion is a special pathologic entity having no relation to an inflammatory or suppurative process. Jaffe has very thoroughly reviewed the clinical picture and has described in detail the gross and microscopic pathology. This lesion, which he has named osteoid-osteoma, has a rather typical clinical course, a characteristic roentgenographic appearance, and a pathognomonic histopathology which, when once appreciated, render the diagnosis relatively simple.

An osteoid-osteoma is a small lesion, rarely larger than a ten-cent piece, located in cancellous or cortical bone but sometimes also under the periosteum. It represents a displacement of normal bone tissue by osteoid and calcified vascular connective tissue surrounded by a variable zone of sclerosis with or without periosteal new bone formation. In some instances the lesion may become so densely ossified that it is difficult to distinguish it from the adjacent bone. The name "osteoid-osteoma" indicates the essential pathologic change, namely, a benign nonmetastasizing tumor which in its earliest stages consists of osteoid tissue and later becomes hypercalcified and ossified.

The distinguishing features of an osteoid-osteoma may be summarized as follows: The disease occurs chiefly in the second and third decades of life but may be found in infants and in older people. The onset is always insidious and is seemingly unrelated to injury, infection, or, so far as is known now, to any other causative agent. Pain is the outstanding symptom. It is definitely localized or at least most marked

at the area of the disease, although there may be some radiation. Mild and intermittent at first, it gradually increases in intensity until finally it becomes continuous and disabling. Exceptionally the pain may remain mild, as it did for two years in a case which I previously reported.*

Tenderness to pressure is constant and clinically is second in importance only to the pain. It is located at the site of the disease and can be readily elicited by a careful examination. It is naturally most marked in superficial lesions, but it can be obtained even in such regions as the upper end of the femur where pressure must be applied through a thick musculature. Theoretically, it might not be obtainable if the lesion is in the body of a vertebra. In infants, as in Case 5 of the present series, the localization of the area of greatest tenderness is an excellent guide to the exact site of the tumor. The clinical triad of an insidious but continuing discomfort, localized pain, and localized tenderness should lead us to at least suspect an osteoid-osteoma.

Roentgenographically the lesion appears as a small area of rarefaction surrounded by a zone of bone sclerosis. The bone sclerosis may be little more than a narrow ring or, when located in a shaft cortex, may extend to several inches on either side of the central focus and may be one or two inches in thickness. In the late stages of the process the lesion may be very dense, denser than the surrounding bone. It is, however, recognizable because of a narrow radiolucent ring between the central nidus and the reactive perifocal osteosclerosis. The lesion is circumscribed, never appears invasive, as other bone tumors so often do, and never metastasizes.

Histologically there are specific pathognomonic changes. There is a central focus of osteoid tissue in various stages of calcification and ossification lying in a substratum of vascular connective tissue and surrounded by dense trabeculae of bone.

Surgically osteoid-osteoma is a very satisfactory disease to manage, for when the excision is complete the symptoms disappear, and they have not recurred in any of the known cases. Because of the small size of the lesion one must be certain at operation that it is completely removed; otherwise the symptoms will continue. Thus it is imperative that during the operation one have the opportunity of x-raying the field

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 28, 1942.

* Am. J. Surg. 53: 1 (July) 1941.

for both accurate localization of the osteoid-osteoma and postoperative assurance that the tumor has been extirpated. The removal of all or even a large part of the reactionary sclerosed bone does not seem necessary so long as the primary focus is excised.

Our ignorance of the cause and origin of osteoid-osteoma is the most cogent reason for reporting some additional cases, in the hope that as our knowledge of this disease increases someone will be able to explain its pathogenesis. The present report is further prompted by the fact that additional experience has shown that the lesion occurs over a wider age range than previously recorded cases indicated. In Dr. Jaffe's group of 33 patients, the youngest was 4 years old and the oldest was 33, while the youngest in my present series is 1½ years old and the oldest is 45. Moreover, in 2 of my cases the lesion was near the lesser trochanter, the operative approach to which is difficult, and I desire to emphasize the fact that the complete removal of the tumor from this site requires the assistance of roentgenography during the operation for its accurate localization. In fact, in all operations on osteoid-osteoma one should not close the wound without a check-up x-ray film showing that the tumor area has been completely excised.

Case Reports

Case 1.—Mrs. E. R., 45 years old, was referred to me by Dr. Alfred Pollak for continuous pain in the left knee of two years' duration. The onset of the pain was insidious without any known antecedent injury or illness. The pain was at first mild and intermittent but soon became continuous, severe, and disabling. Numerous x-ray films were interpreted as showing arthritic changes but these were hardly extensive enough to account for the severe pain. The patient continued to suffer, could not sleep, and was becoming increasingly distracted and weakened. In this state of discouragement she consulted me on November 11, 1940, complaining of pain in the left knee, and significantly pointing to one spot on the antero-external surface of the knee as the location of her great discomfort.

Examination: The patient walked with a limp on the left side and, although the left knee appeared normal, there was a one-inch atrophy of the left calf. The joint was freely movable and there was no local heat or excessive joint fluid. At the site of her pain there was exquisite tenderness to pressure limited to an area of about ½ inch square. Away from this region there was no tenderness. The tender spot was located over the articular surface of the external femoral condyle at the junction of the anterior and lateral surfaces. An x-ray film (Fig. 1) made on September 14, 1940, showed a lesion in the lateral femoral condyle at the exact site of the pain and tenderness. There was seen a small irregularly oval area of bone, about ¼ inch in diameter, surrounded by a narrow zone of rarefaction lying in the

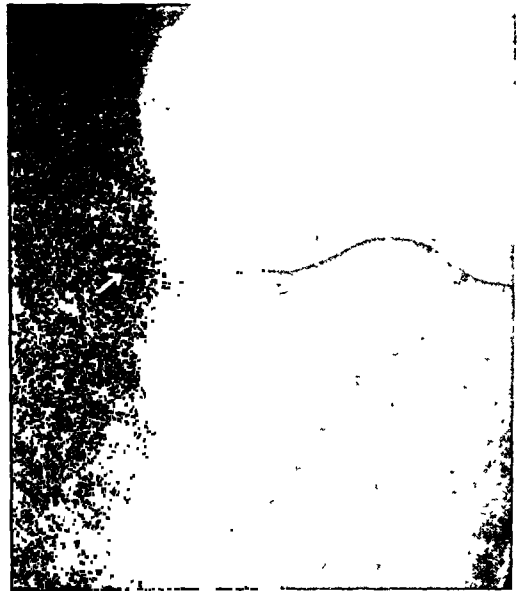


FIG. 1. Case 1. Antero-posterior view of the knee showing the lesion in the outer condyle of the femur. Note the circular area of bone surrounded by a radiolucent zone in a patch of porotic bone.

midst of a larger irregular patch of porotic bone. The central piece of bone looked like a sequestrum except that its density was not as pronounced as that of dead bone.

This lesion was visible in several but not in all of the many roentgenograms which had been taken prior to and after September, 1940, and, because of its inconspicuousness, it might readily be overlooked. Incidentally, no such structural pathology was seen in any of the films of the right knee. A diagnosis of osteoid-osteoma was made, and, on the basis of the prolonged illness, the localized pain and tenderness, and the roentgenographic appearance, an operation was advised.

The operation was performed on November 14, 1940, under spinal anesthesia. The knee was flexed to a right angle over the edge of the table and a 3-inch vertical incision was made lateral to the patella. Upon incision and retraction of the joint capsule there immediately came into view an indented area on the articular surface of the lateral femoral condyle near its outer border. The involved area measured about ½ by ⅜ inch and affected both the anterior and the lateral aspects of the condyle. In the center of the depression was an area of bluish discoloration. The articular cartilage immediately surrounding the bluish area appeared gray and thin; the adjacent articular cartilage had a normal grayish, glistening appearance. With an osteotome the diseased mass was removed to a depth of ½ inch, exposing normal cancellous bone, neither unduly vascular nor sclerotic. The rest of the knee joint appeared normal. The wound was closed in layers and healed by primary union. The patient was promptly relieved of her pain, which has not recurred.

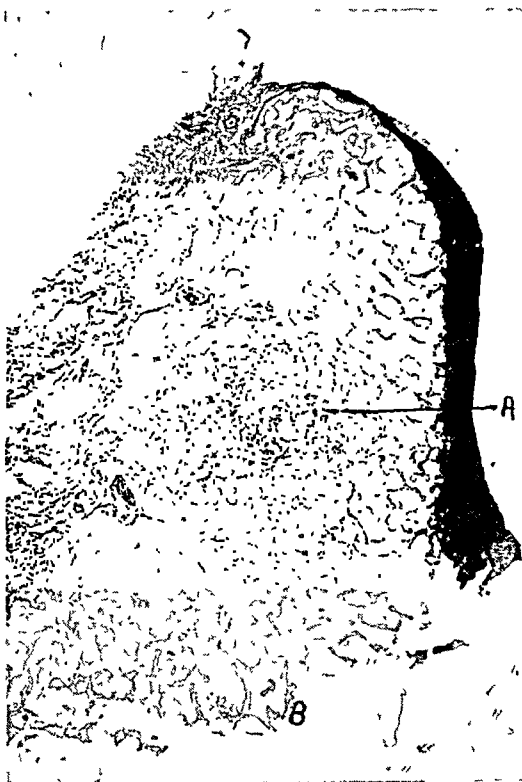


FIG. 2. Case 1. Cross section, low magnification ($\times 6$). Note differentiation between central osteoid tissue (A) and normal cancellous bone at periphery (B).



FIG. 3. Case 1. High-power magnification ($\times 150$) of the central nidus shows markedly calcified and osteoid tissue.

A cross section of the specimen (Fig. 2) shows the typical appearance of this lesion. There is a central circular nidus (A) of osteoid tissue surrounded by normal cancellous bone (B). A high-power magnification (Fig. 3) of the central nidus shows markedly calcified and osteoid tissue. Twenty-eight sections were made in various planes of this specimen, and in not a single one of these was there any evidence of inflammation.

Case 2.—Simon S., 29 years old, was referred to me by Dr. R. Goldenberg on March 3, 1941, with a diagnosis of osteoid-osteoma. His chief complaint was sharp recurrent pain in the upper part of the front of the right thigh and an occasional limp after considerable walking. The pain had appeared insidiously about six months previously without any known antecedent illness or injury. It recurred intermittently, varied in intensity, came on in spells during the day or at night, and in the last few months had been increasing in degree.

The patient was a well-built, muscular, robust individual who seemed in excellent health. The physical examination revealed no abnormality except for mild tenderness to pressure over the front of the thigh at the level of the lesser trochanter. The motions in the right hip were free and painless. The roentgenogram (Fig. 4) revealed a lesion in the

intertrochanteric area of the femur nearer the lesser than the greater trochanter. The lesion appeared as a circular area of rarefaction about $\frac{1}{2}$ inch in diameter, within which there were spots of increased calcification. The surrounding bone was normal. The clinical diagnosis of osteoid-osteoma was confirmed and an operation advised.

Operation: The patient was operated upon on March 22, 1941. The femur was exposed through a vertical anterior incision. By a check-up x-ray film with an artery clamp at the approximate site of the osteoid-osteoma its exact location was identified and assured. A square of cortical bone was removed, revealing an oval mass of softened bone in a shell of harder bone. The softened mass shelled out like a kernel. The pathologic examination (Fig 5) showed, as in the previous case, the typical findings of an osteoid-osteoma confirming the original diagnosis.

Case 3.—Robert L., 17 years old, was referred to my clinic in October, 1939, for a lump on the right side, which he had just noticed six months before. Several months previously he had had an infection of the upper respiratory tract, which continued intermittently until about the time when he was observed to limp. In July, 1939, the boy first experienced pain along the upper part of the inner side of



FIG. 4. Case 2. Antero-posterior view showing a circular area of rarefaction along the intertrochanteric line only faintly differentiated from surrounding bone. There is almost no reactionary sclerosis of bone.

the right thigh. The pain was rather annoying at night and often disturbed his sleep. A marked atrophy of the right thigh had been noticed as early as April, 1939.

The examination showed a tall, muscular boy who walked awkwardly rather than with a limp. There was tenderness to pressure over the front of the thigh near the lesser trochanter. The motions in the right hip were normal, but at the extreme of abduction he had pain in the upper part of the thigh. The roentgenograms showed a marked widening and thickening of the femur just below the intertrochanteric line for a distance of about 3 inches. Lateral to the lesser trochanter was discernible an area of rarefaction about as big as a dime, seen more clearly in the lateral (Fig. 6) than in the antero-posterior view. Within this porotic zone was a mass of irregularly thickened bone. There was a very extensive osteoperiosteal thickening of the femur along the inner surface for about an inch above and 3 inches below the lesser trochanter.

This patient was operated on in October, 1939, through a vertical incision on the front of the upper part of the thigh. I had felt that by exposing the front of the femur and identifying the greater and lesser trochanters I should have no difficulty in finding and excising the lesion. At the operation, on removing a square of the cortical bone I thought I located some softened tissue which must be the osteoid-osteoma. I excised this and closed the wound. The patient was not relieved. The microscopic examination of the removed tissue showed that it was not the osteoid-osteoma, and new x-ray films exhibited the lesion to be a little to the inner side of the area operated upon. I therefore urged a second

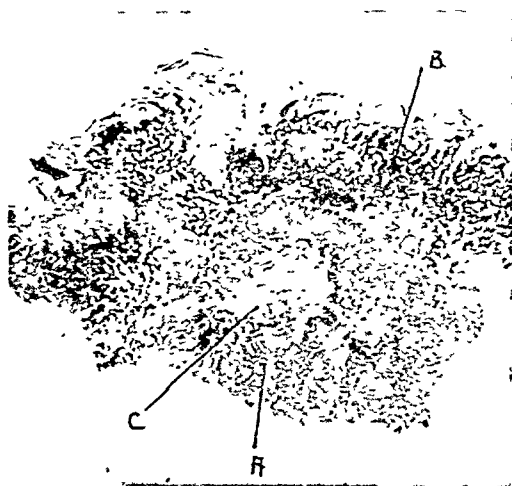


FIG. 5. Case 2. Photomicrograph ($\times 12$) of a section through the lesion represented by the rarefied area in Fig. 4. This osteoid-osteoma is composed in part by large sheets of calcifying and ossifying osteoid (A). At B is seen hypercalcified trabeculae of new bone, and at C vascular connective tissue.

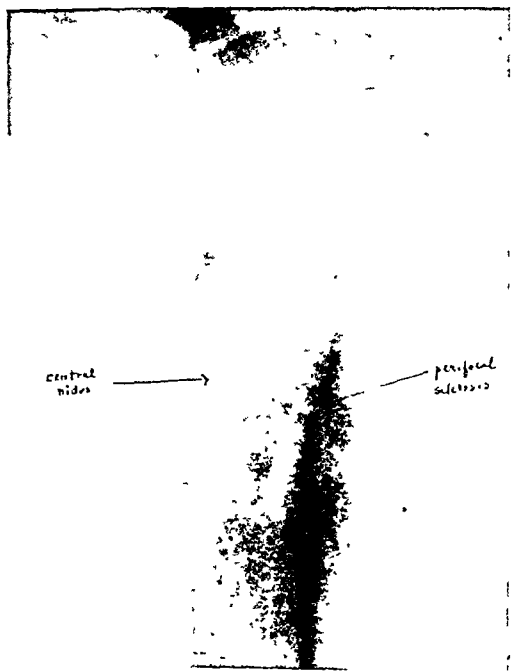


FIG. 6. Case 3. Lateral x-ray film showing the lesion very clearly. Note the extensive reactionary new bone.

operation, which I performed in December, 1940. This time I made sure of the exact location of the lesion by placing an instrument at its approximate site and having an x-ray film made before I excised



FIG. 2. Case 1. Cross section, low magnification ($\times 6$). Note differentiation between central osteoid tissue (A) and normal cancellous bone at periphery (B).



FIG. 3. Case 1. High-power magnification ($\times 150$) of the central nidus shows markedly calcified and osteoid tissue.

A cross section of the specimen (Fig. 2) shows the typical appearance of this lesion. There is a central circular nidus (A) of osteoid tissue surrounded by normal cancellous bone (B). A high-power magnification (Fig. 3) of the central nidus shows markedly calcified and osteoid tissue. Twenty-eight sections were made in various planes of this specimen, and in not a single one of these was there any evidence of inflammation.

Case 2.—Simon S., 29 years old, was referred to me by Dr. R. Goldenberg on March 3, 1941, with a diagnosis of osteoid-osteoma. His chief complaint was sharp recurrent pain in the upper part of the front of the right thigh and an occasional limp after considerable walking. The pain had appeared insidiously about six months previously without any known antecedent illness or injury. It recurred intermittently, varied in intensity, came on in spells during the day or at night, and in the last few months had been increasing in degree.

The patient was a well-built, muscular, robust individual who seemed in excellent health. The physical examination revealed no abnormality except for mild tenderness to pressure over the front of the thigh at the level of the lesser trochanter. The motions in the right hip were free and painless. The roentgenogram (Fig. 4) revealed a lesion in the

intertrochanteric area of the femur nearer the lesser than the greater trochanter. The lesion appeared as a circular area of rarefaction about $\frac{1}{2}$ inch in diameter, within which there were spots of increased calcification. The surrounding bone was normal. The clinical diagnosis of osteoid-osteoma was confirmed and an operation advised.

Operation: The patient was operated upon on March 22, 1941. The femur was exposed through a vertical anterior incision. By a check-up x-ray film with an artery clamp at the approximate site of the osteoid-osteoma its exact location was identified and assured. A square of cortical bone was removed, revealing an oval mass of softened bone in a shell of harder bone. The softened mass shelled out like a kernel. The pathologic examination (Fig 5) showed, as in the previous case, the typical findings of an osteoid-osteoma confirming the original diagnosis.

Case 3.—Robert L., 17 years old, was referred to my clinic in October, 1939, for a limp on the right side, which he had just noticed six months before. Several months previously he had had an infection of the upper respiratory tract, which continued intermittently until about the time when he was observed to limp. In July, 1939, the boy first experienced pain along the upper part of the inner side of

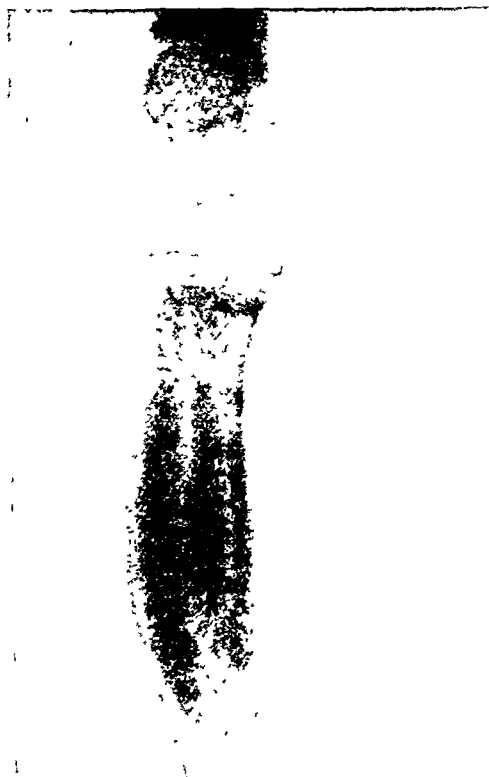


FIG. 9. Case 5. The antero-posterior roentgenogram showed a diffuse enlargement and marked sclerosis of the upper two-fifths of the shaft of the tibia. The osteosclerosis involved the inner part of the shaft to a greater degree than the outer surface. This lateral view presents an anterior bowing and marked thickening of the upper part of the shaft and a large area of intramedullary bone sclerosis that resembles a sequestrum.

The patient presented a marked knock-knee deformity on the right side, with a conspicuous prominence and enlargement of the upper portion of the tibia. The circumference of the right leg near the knee was $\frac{3}{8}$ of an inch larger than that of the corresponding portion of the left leg. There was exquisite tenderness to pressure over the upper part of the right tibia, but no tenderness elsewhere in the right leg or in any part of the left leg. The roentgenograms showed extensive changes in the right tibia. In the antero-posterior film one saw a diffuse enlargement and sclerosis of the upper two-fifths of the tibia, the sclerosis involving the inner side mainly, and the outer side only slightly. The lateral view (Fig. 9) showed an extensive linear thickening

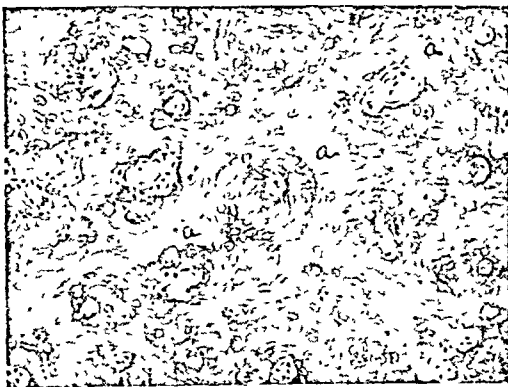


FIG. 10. Case 5. In the high-power ($\times 250$) magnification note active reconstruction, vascularization, and new bone deposition about the vessel spaces in the nidus. Much of the interstitial osseous tissue of the nidus shows poor staining or absence of staining of its nuclei, notably in the areas marked *a*.

of the anterior cortex and a large sequestrum in the marrow cavity, with moderate sclerosis of the posterior surface of the tibia. The central elongated sclerotic mass or sequestrum was completely surrounded by a zone of translucent or normal-appearing medullary or cancellous bone. The tibia was bowed forward considerably at the level of the lesion.

We were very much puzzled as to what this lesion in an infant $1\frac{1}{2}$ years old might be. The child was not ill enough for a pyogenic osteomyelitis. Moreover, there was no history of any sudden onset with fever, malaise, and toxicity, which regularly accompany an acute hematogenous osteomyelitis, especially in a baby. A blood count was normal and the Wassermann and Kahn tests were negative. The roentgenologist's report was "an osteoperiostitis of the tibia, the character of which was not radiographically evident." The child was observed for six weeks, during which period his temperature remained normal and he otherwise behaved normally except for the persistence of the deformity, the tenderness of the right leg, and the awkward gait.

He was operated upon on March 3, 1942. A complete saucerization of the upper end of the tibia was done under tourniquet control. The periosteum of the tibia was markedly thickened. The bulging mass of the tibial cortex was removed in one block. Underlying this was spongy bone in which was embedded a whitish eburnated bony mass 1 inch long and $\frac{1}{2}$ inch wide. This eburnated bone was completely removed. The floor of the cavity was thoroughly curetted. There was no pus and no walled-off abscess anywhere in the wound. The wound was closed without drainage and is healing by primary union.

The microscopic study of the intramedullary, sequestrum-like, bony mass showed it to be most likely an osteoid-osteoma (Fig. 10). A low-power

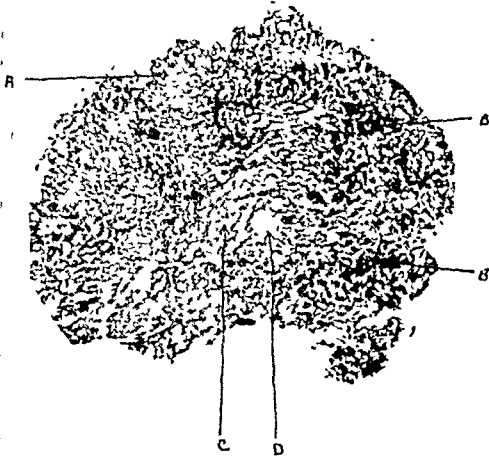


FIG. 7. Case 3. Photomicrograph ($\times 12$) of a section through the lesion represented by the rarefied nidus in the thickened femoral cortex shown in Fig. 6. (A) Calcifying osteoid. (B) Ossifying osteoid. (C) Connective tissue substructure. (D) Blood vessel space.

any bone. The osteoid-osteoma was located and removed. It appeared as a kernel of softened bone within a shell of harder bone. After this operation the boy was promptly relieved of all pain and has remained well.

The microscopic examination (Fig. 7) of the osteoid-osteoma showed the characteristic pathognomonic findings of a central focus of calcifying and ossifying osteoid tissue surrounded by an extensive osteosclerosis.

Case 4.—P.C., an 11-year-old girl, was referred to me by Dr. Langsam for swelling of the left ankle which had first been noticed a few weeks previously. The child had occasional pains in the leg, extending up to the knee. She appeared in good general condition and walked without a limp, although I was told that at times she did limp. The subjective symptoms were very mild. The left leg presented a very definite swelling, occupying its lower one-fourth. The swelling was most marked on the inner side where there was an elevation of the surface temperature and exquisite tenderness to pressure at a point about 3 inches above the tip of the internal malleolus. The x-ray films (Fig. 8) showed an extensive enlargement and sclerosis of the lower 3 inches of the tibial diaphysis, and in the center of the sclerotic bone a small oval area of rarefaction a little more than $1\frac{1}{2}$ inch in diameter. The diagnoses considered were chronic osteomyelitis with a central and deep-seated abscess, a sclerosing nonsuppurating osteomyelitis, a Brodie's abscess, and an osteoid-osteoma.

At operation, performed on January 9, 1942, the bone was found to be exceedingly dense and greatly enlarged. There was no abscess, but at the level of the rarefied area was found a small nidus of softened tissue within the cortex of the tibia. A very thorough saucerization was done and the wound



FIG. 8. Case 4. Marked enlargement and sclerosis of the lower fourth of the tibia with a small oval area of rarefaction in the cortex about 3 inches above the malleolus.

was closed without drainage. The wound healed by primary union and the patient has been completely relieved. The pathologic examination showed an osteoid-osteoma with the typical morphologic changes.

Case 5.—This is probably the most interesting of all my cases. From the diagnostic point of view it was the most difficult because of the age of the patient and the peculiar x-ray appearance. The patient, J. W., a boy $1\frac{1}{2}$ years old, was brought to me on January 19, 1942, because he walked awkwardly and constantly turned his right leg outward. He had begun to walk two and one-half months previously. The awkward gait had been noticed promptly. It was supposed to be due to an inequality in the length of the legs, for which a compensating lift in one shoe was prescribed. The child had had no injuries and no spells of fever. He was playful and seemingly had no pain, at least none that prevented walking.

HISTAMINASE INTRAMUSCULARLY IN HAY FEVER

D. EDWARD FRANK, M.D., New York City

MUCH has been written about the relationship of histamine to allergic phenomena ever since Dale and Laidlaw,¹ in 1910, pointed out the similarities between anaphylaxis and histamine shock. Many allergists are convinced that allergic disorders are due to the release of either histamine or a histamine-like substance in the affected tissues. Within the past few years much clinical evidence has been submitted²⁻⁷ purporting to show that histaminase, an enzyme extracted from the kidneys and intestinal mucosa of hogs, effectively aids a goodly percentage of allergic disorders. The explanation for such beneficial results has been based on the theory that histaminase, which is capable of inactivating histamine *in vitro*, probably acts similarly *in vivo*. However, very little experimental work has been reported substantiating the latter supposition. The work of Karady and Browne,⁸ which reported protection against anaphylactic shock in guinea pigs by injection of histaminase fifteen minutes before the shock dose of antigen, has not been confirmed by the author.⁹ Barlow and Homburger¹⁰ reported similar protection against anaphylactic shock when the histaminase was given as a series of injections for several days preceding the shock dose. The author⁹ was able to confirm that histaminase given in such a manner offered some measure of protection against anaphylaxis in guinea pigs. For this reason, it was felt histaminase deserved a clinical trial. Harris and Frank⁹ have already reported the failure of histaminase, given orally, to protect against asthma. But since experimental results were obtained with parenteral injections, we decided to try histaminase, intramuscularly. The present article reports its use, intramuscularly, in seasonal ragweed pollinosis.

During the past two years we have treated 101 cases of hay fever with histaminase, intramuscularly, seeing 16 cases in 1940 and 85 cases in 1941. In 1940, assuming the histamine inactivation theory as a basis for operation, we treated cases, coseasonally, because we assumed that during the season, when the patient was suffering, the maximum amount of histamine should be released in the tissues. Unfortunately, only 9 cases presented themselves during the latter part of August for coseasonal treatment. Of these, 6 cases were benefited but only 3 obtained very satisfactory results. These results are too

meager, statistically, to be more than mentioned before we pass on to the 1941 season.

In 1941 we treated 85 ragweed pollinosis cases divided into three main groups: a pre-seasonal group, a pre- and coseasonal group, and a coseasonal group. We were able to check results properly in but 69 of the cases. Of the 69 cases treated, 44 had had pollen therapy in previous seasons. Twenty-five did not have previous pollen therapy. The patients, in the month of July, received one injection weekly of 4 units of histaminase. (We found the 4 unit ampules less toxic than those used in 1940. The reactions resulting were strictly limited to a development of local pain 3 or 4 hours after the injection, lasting from several to forty-eight hours. After a few injections, usually little or no pain was felt.)

In the month of August, patients received every week two injections of 4 to 6 units each, until about August 20. At that time, in some patients who began to manifest hay fever symptoms the dosage was raised to 9 or 12 units every other day. In coseasonal cases appearing after August 20, injections of from 6 to 12 units were given daily or every other day.

The total number of injections, the frequency of them, and the total unitage received varied with the date the patient started treatment and with his ability to cooperate and to stand the pain of repeated injections. Eighty per cent of the patients were given between 25 and 50 total units of histaminase; 90 per cent received between five and ten injections.

Analysis of results from the point of view of the total number of injections received showed only slight variations between those receiving from one to five and those receiving from five to ten, or over ten injections. Equally, there was insignificant variation in the results obtained with patients receiving 4 to 25 units and those receiving 25 to 50 units or over 50 units.

Table I presents the results obtained in the present study. The column "Better than Last Year" does not necessarily indicate an excellent result. It merely indicates that the thing the patient recalls most about his hay fever—how he felt last year—has been chosen as a basis for comparison. If the patient had had no previous therapy, the results under histaminase were contrasted with his usual symptoms without therapy. On the other hand, if he had had pollen therapy last year, results were contrasted with those under pollen therapy. This occurred in 44

($\times 10$) photomicrograph showed a section of the sclerotic nidus surrounded by compact bone of normal structure. In the high power ($\times 250$) photomicrograph (seen in Fig. 10) we note active reconstruction, vascularization, and new bone deposition about the vessel spaces in the nidus. Much of the interstitial osseous tissue of the nidus (i.e., the bone between the areas of new bone) shows poor straining or absence of staining of its nuclei. There is no evidence of inflammation anywhere in the nidus, nor were there evidences of inflammation in many additional blocks of tissue examined from this case.

Summary

There are here recorded five additional cases of osteoid-osteoma in patients varying in age from $1\frac{1}{2}$ years to 45 years. From this experience we must appreciate the fact that this tumor may occur at practically any age, though the majority of the patients are in the second and third decades of life. The history in all of these patients was similar to that obtained in all previous cases, and showed that the tumor appears insidiously and that its symptoms, particularly

pain, are at first vague and mild. After several months, however, the pain becomes persistent, increasingly severe, and disabling. In children the disability may be the first and the most conspicuous symptom. Tenderness is the most important objective sign, since it is always present and establishes the location of the pathology, which is usually very clearly visualized in the roentgenograms. In osteoid-osteoma, as in most osseous lesions, x-ray films should be made in several planes since only some of the views may reveal the changed morphology. Histologically the lesion is a benign tumor consisting of a central nidus of osteoid tissue in various stages of calcification and ossification, surrounded by a variable zone of osteosclerosis. The only effective treatment is thorough surgical removal of the tumor.

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FIFTEEN-YEAR STUDY OF RHEUMATIC HEART DISEASE

When rheumatic heart disease begins in childhood, 69 per cent survive childhood, 35 per cent survive adolescence, 18 per cent reach the age of 30, and 5 per cent live beyond the age of 45. Alfred E. Cohn, M.D., and Claire Lingg, of New York City, report in the *J.A.M.A.* for January 2. "When the disease begins in adolescence," they say, "85 per cent survive this age period, 55 per cent reach the age of 30, and 21 per cent the age of 46 or more. When the onset is in the twenties, 23 per cent, and when it is after 30, 44 per cent survive the age of 45."

These findings are based on a study which occupied the authors continuously for fifteen years, during which 3,129 patients with rheumatic heart disease were observed until death.

"The supposition is general that girls are more often afflicted than boys," the authors say, "but when so large an experience as this is available it appears that this is not the case—the two sexes are afflicted in equal numbers. There were 1,566 males and 1,563 females."

Among the other important facts about the disease revealed by this study is that there is no important difference between the sexes in the age at onset. The mean age for males is about 14 years and for females about 15 years.

"Rheumatic fever," the authors say, "may begin at any age, but it usually begins in childhood, especially between the ages of 5 and 10 years. At 15, 70 per cent of persons afflicted have already acquired the disease."

"In youth, the onset of the disease is characterized by polyarthritis in about half and by carditis or chorea in about one-third. In adult life, the onset is characterized chiefly by polyarthritis and, with advancing age, by the appearance of valvular lesions alone."

"The mean duration of the disease is about thirteen years; 50 per cent of patients die within nine years after onset, but 25 per cent live more than seventeen years and 10 per cent for thirty or more years. . . ."

"Of all cases of rheumatic cardiac disease, 65 per cent are to be found in childhood. In the remaining 35 per cent the disease is acquired at later age periods. In adolescence are to be found 56 per cent—the survivors from childhood plus those who have acquired the disease in this age period. In the age group past 45 are to be found only 16 per cent, of whom 13 per cent were first afflicted before and 3 per cent after age 45."—*A.M.A. News* December 31, 1942

SOCIETY FOR ORAL DIAGNOSIS

The next meeting of the New York Society for Oral Diagnosis will be held on February 17 at 9 p.m. in Squibb Hall, 745 Fifth Avenue, New York City.

Members of the medical and dental professions are cordially invited.

PARTIALITY

Medical papers that I like best
Are always, if the truth be told,
The ones that just corroborate
The views that I already hold!

—*Texas State Journal of Medicine*

ment is to be considered. The more important question is whether the pharmacology of the drug is to be considered in the light of a specific enzyme detoxifying histamine, or in the light of a nonspecific protein.

Experimentally, the author, in several studies, was unable to find precipitins to histaminase in treated serum or demonstrate any increase in the circulating antibodies of sensitized guinea pigs, protected, in 50 per cent of the cases, from anaphylactic shock by histaminase. However, I could demonstrate that the protective action against anaphylaxis in guinea pigs was even greater, if human serum rather than histaminase was used—which seems to speak poorly for any supposed specific action on the part of histaminase.

Clinically, the fact that results obtained were just as good, whether treatment was preseasonal or coseasonal, logically seems to indicate that histaminase effects are nonspecific in nature. Rose,¹¹ looking for a decrease in the blood histamine of patients treated with histaminase, could find no such decrease, which would have suggested a specific detoxifying capacity, *in vivo*. On the other hand, Williams *et al.*,¹² investigating rabbit's blood, found that histaminase caused a drop in the blood histamine within two hours, but returned back toward normal within eight hours. Rose's observation suggests a nonspecificity to any histaminase activity, whereas Williams' observation suggests that the action of the substance, as far as histamine in the blood is concerned, is short-lived and immediate. Neither suggests any possible storage of histaminase for later use, which is what would have had to take place in our preseasonal patients who were benefited, if we were to consider the action a specific one. Logically, the results therefore suggest a nonspecific action.

The reactions to histaminase therapy are at times quite painful and occasionally may produce fever. Although they are not serious, they do not justify the indiscriminate use of the substance.

Conclusions

1. Histaminase was used, intramuscularly, in treating 69 observed cases of hay fever in 1941. The gross percentage benefited was 39.1 per cent. Those with fair to excellent results numbered but 28 per cent.

2. The percentage of patients benefited was approximately the same under preseasonal and coseasonal therapy.

3. A relatively higher percentage, 56 per cent, obtained relief from histaminase if the patients had never had any pollen therapy in past years. A much lower percentage, 27.7 per cent, was obtained for patients who had had previous years of successful pollen therapy.*

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*The author wishes to thank for their cooperation, advice, and permission to treat cases in their clinics, Dr. H. Harold Gelfand at the Gouveneur and Stuyvesant Polyclinic Hospitals, Dr. Henry L. Turkel at the Lenox Hill Hospital, and Dr. M. Coleman Harris at the New York Polyclinic Hospital.

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TABLE 1.—HISTAMINASE THERAPY INTRAMUSCULARLY IN
RAGWEED POLLINOSIS CASES

Histaminase in Cases Treated	Number of Cases Reported	"Better than Number Last Year"	Percentage
Preseasonally	18	7	38.8
Pre- and coseasonally	46	18	36.9
Coseasonally	5	2	40.0
Total	69	27	39.1
Without any previous pollen therapy	25	14	56.0
With previous pollen therapy in:			
(a) Cases with good results from therapy	36	10	27.7
(b) Cases with poor results from therapy	9	3	33.3

of the cases, and since pollen therapy benefited 36 of these 44 cases, it meant that histaminase had to be effective in order to compete with or improve the results.

In the group of 25 patients who had had no pollen therapy, 56 per cent of the cases benefited. Those who had had previous pollen therapy were subdivided into two groups: 36 who had benefited from pollen therapy and 9 who had not. The results were slightly better in the group which had not benefited from pollen therapy. In the group of 36 cases which had benefited from previous pollen therapy, histaminase benefited but 27.7 per cent during the 1941 season. A "carry over" beneficial effect from several years of pollen therapy, which one might have expected, was not definitely evidenced in the results.

Those cases treated on a strictly preseasonal basis (injections terminated before August 20) fared approximately the same as the cases treated on a pre- and coseasonal basis or those treated only coseasonally: 39 per cent, 37 per cent, and 40 per cent, respectively. The results were in no way comparable to those generally obtained by using pollen therapy. The season was admittedly one of the worst in years for sufferers in general. This made it especially difficult for histaminase, competing, as it were, with results from pollen therapy obtained during a much less severe season. At the same time, the unusually severe season offered a better test for a substance which would compete with pollen therapy in relieving hay fever.

Summary

Summarizing the results obtained in 1941, during which histaminase was used in the treatment of hay fever, the following may be said:

Coseasonal results, 40 per cent in 1941 obtained in but a small number of cases, were less encouraging than those obtained in 1940, but were not a total failure. There was no essential difference in the results between preseasonal therapy and co-

seasonal therapy. A significantly higher figure, 56 per cent, was obtained in that group of patients who had not had any previous pollen therapy. Cases who had had previous pollen therapy with or without good results fared much worse.

Discussion

The fact that histaminase was experimented with during a most severe season has been mentioned. Daily pollen counts for 1940 and 1941 show a much higher average for a greater number of days during the 1941 season. Symptomatically, the large majority of histaminase patients who were troubled during the 1941 season manifested their symptoms when the pollen counts were highest. Control patients under routine pollen therapy fared better than histaminase cases. This important difference between the results obtained from pollen therapy and histaminase is demonstrated by the gross figures in Table 1. Pollen therapy usually gives 80 to 85 per cent beneficial results. However, the figures do not tell all, for they indicate about a 40 per cent successful result from histaminase therapy. In terms of quantitative relief, routine charts of the symptoms of patients plus personal questioning do not indicate that more than 28 per cent had fair to excellent results. The other 12 per cent were simply better than last year although still suffering considerably. (Those pollen cases who had had good or excellent results in past seasons and who fared somewhat worse on histaminase, but still were much better than before any therapy, since this might have been attributed to a "carry over" effect, were not included in the "Better Than Last Year" results or the 28 per cent figure just mentioned. They had to be better under histaminase for this substance to receive the credit.)

Experience has demonstrated that some patients do not do well on pollen therapy. Some of these were benefited by histaminase. This fact should not be considered an argument in favor of the specific detoxifying power of histaminase for histamine, *in vivo*. There are many instances in medicine in which specific conditions are relieved by nonspecific measures—i.e., schizophrenia by metrazol shock, etc. This may be such an instance. The fact that of 25 patients who had never had previous pollen therapy, 56 per cent were benefited by histaminase is significant. Some might hastily judge the results to be a psychic effect, which is not too likely, considering that 28 per cent of those who had had previous pollen therapy and had benefited from it felt that they were even better under histaminase without pollen therapy. However, the author feels that unquestionably, with histaminase, as with most other medications, some psychic ele-

about normal, began to rise to about 101 F.; the patient was nauseated; the lungs were clear; there was no diarrhea; the stools were well formed, and there was no abdominal pain. Since it was believed that this was a drug fever, sulfaguanidine was discontinued. On October 13 the patient was given a blood transfusion of 350 cc. During the last week, dehydration became more marked; there was increasing azotemia, and on October 20 the patient lapsed into profound coma; the breathing was deep and of the Kussmaul type. Some coarse scattered rales were noted over the left lower lobe, but there were no signs of definite consolidation. The heart sounds were muffled; reflexes were abolished, and there was evidence of tarry stools. The patient died the same day.

Discussion

DR. EMANUEL APPELBAUM: The outstanding symptom on admission in this case was a severe diarrhea. Because of a rather abrupt onset and a history of a similar disease among associates, a diagnosis of an acute intestinal infection seemed logical. The azotemia and acidosis were regarded as secondary to the diarrhea and the dehydration. Following treatment with sulfaguanidine for six days, there appeared to be a definite clinical improvement. When the temperature began to rise on the seventh day, the possibility of drug fever was considered and the sulfonamide was discontinued. While there was a history of heart disease, there was no evidence of myocardial failure during this admission. Actually, not too much attention was paid to the patient's heart.

After nearly two weeks' observation it became obvious that the patient was really getting worse, although the diarrhea was apparently under control. The dehydration persisted and the lethargy increased. The blood picture showed a progressively mounting azotemia, a persistently low carbon dioxide combining power, and hypocalcemia. It was at this point that I suggested the diagnosis of uremia with uremic colitis.

The records of his previous admissions to Bellevue Hospital were then reviewed carefully. These revealed the following facts:

The patient's first admission was in May, 1939, for an infection in the stump of his amputated leg. He gave at that time a history of diabetes of twelve years' duration. However, there was no glycosuria, and the blood sugar was 114 mg. per cent. The blood pressure was 170/100. The second admission was in August, 1941, for generalized edema and dyspnea on

exertion. His heart was moderately enlarged. The blood pressure was 170/110. The urine had a specific gravity ranging from 1.004 to 1.025, with albumin to 4 plus, a trace of sugar, and numerous hyaline and granular casts. The blood chemistry showed a sugar of 125 mg. per cent, cholesterol of 170 mg. per cent, and nonprotein nitrogen of 34 mg. per cent. The serum albumin was 3.8 Gm. per cent, and the globulin 2.3 Gm. per cent. The case was regarded as an instance of hypertensive heart disease. Prompt improvement followed the use of digitalis and diuretics. Following three weeks' treatment the patient was discharged. He was readmitted in November, 1941, with the same symptoms—namely, edema and exertional dyspnea. The blood pressure was 168/98. The urine showed a specific gravity of 1.018, 3 plus albumin, and a few finely granular casts. There was no glycosuria. The glucose tolerance test was as follows: fasting blood sugar, 60; after one hour, 114; after two hours, 100. A diagnosis of intercapillary glomerulosclerosis was entertained at that time. The patient responded to treatment for cardiac failure and was discharged in about a week. The subsequent four admissions, between January and August, 1942, were all mainly for progressive edema. The blood pressure ranged between 160/100 and 185/110. Albuminuria and cylindruria persisted. There was no azotemia and no evidence of diabetes. A glucose tolerance test repeated during his fourth admission was as follows: fasting blood sugar, 75; after one-half hour, 84; after one hour, 125; after one and one-half hours, 139; after two hours, 156. A repeat glucose tolerance test a few days later showed the following values: fasting blood sugar, 106; after one-half hour, 100; after one hour, 148; after one and one-half hours, 165; after two hours, 116; after two and one-half hours, 108; after three hours, 95. Urine specimens were all simultaneously negative for glucose. The patient responded each time to treatment for congestive failure.

It is noteworthy that in 1941 some form of renal disease was suspected. Because of the marked edema, albuminuria, hypertension, and a previous history of a mild diabetes, we suggested then a diagnosis of intercapillary glomerulosclerosis. As you undoubtedly know, in this condition the diabetes, which is as a rule mild, comes first and is followed by hypertension and the urinary syndrome. Some of the clinicians, however, felt at that time that we were dealing with a straightforward case of hypertensive heart disease in failure. Indeed, the case was treated as such, and the patient showed prompt and marked improvement.

Diagnosis

CLINICOPATHOLOGIC CONFERENCES

FOURTH MEDICAL DIVISION OF BELLEVUE HOSPITAL

Date: December 3, 1942

Conducted by: Dr. Emanuel Appelbaum

DR. FRANK J. RUMMEL: This was the eighth Bellevue admission of a 50-year-old white man, who was admitted to Bellevue Hospital on October 1, 1942. His chief complaint was diarrhea of ten days' duration and the passing of brownish watery stools, without blood or mucus, twenty-four times in twenty-four hours. He also complained of an intermittent, dull, supra-umbilical pain which preceded bowel movements and which was relieved by the passage of stools. There was no nausea or vomiting; the patient had never had diarrhea before. At about the same time four or five of his associates experienced diarrhea. The patient's appetite had been poor since the onset of his present illness. He had lost considerable weight during the ten days prior to admission. He slept poorly; there was no history of headache; there was slight cough but no dyspnea. The patient experienced occasional nocturia and there was urinary frequency during the day—three to four times. There was no evidence of skin rash. The patient had experienced hiccoughing during the three days before admission. During his previous admissions he had presented a picture mainly of cardiac failure, for which he was treated successfully with diuretics and digitalis. In 1939 his right leg was amputated because of gangrene.

On admission the temperature was 97.8 F.; pulse, 96; respirations, 20; and the blood pressure ranged between 110/70 and 150/80. The patient was a well-developed, lethargic, dehydrated white man in no acute distress. The skin was flushed. There were marked unilateral excoriations of the buttocks, multiple crusted lesions on the body, and pigmentation of the lower abdomen. The eyes, ears, nose, and throat were negative except for the tongue, which was beefy red and furred. The neck was supple; there was no tracheal deviation or lymphadenopathy. The thorax was symmetrical; the lungs were hyperresonant throughout, with distant breath sounds; there were no rales. The heart was enlarged to the left; there was regular sinus rhythm; the sounds were distant. There was present a systolic murmur at the apex. The abdomen was soft; there was

no tenderness; no organs or masses were palpable. The rectal examination was negative. There was no edema, cyanosis, or clubbing of the extremities.

Laboratory Data.—The red blood cells averaged 4,100,000, with 11 Gm. of hemoglobin; the white blood cells were 7,650 on admission and later averaged about 18,000, with 75 per cent polymorphonuclears, 20 per cent lymphocytes, and 5 per cent monocytes.

Urinalyses: Specific gravity ranged from 1.008 to 1.015; reaction for albumin was 1 to 4 plus; reaction was negative for glucose; microscopic examination revealed a few hyaline and granular casts and a few white blood cells per high power field.

The blood nonprotein nitrogen tests were reported to be 72 to 128 mg. per cent; the blood creatinine was 2.5 mg. per cent; chlorides, 564; carbon dioxide combining power, 18 to 30 volumes per cent; calcium, 5.9 mg. per cent; serum albumin/globulin ratio, 2.5/3.6 Gm. per cent; fasting blood sugar, 80 mg. per cent. The stool cultures were negative for ova, parasites, dysentery, paratyphoid, and typhoid; the guinea test was positive on three occasions and negative on one occasion. The erythrocyte sedimentation rate was 24 mm. per hour on October 2; 3 mm. on October 9. The blood agglutinations were negative for typhoid, paratyphoid, Brucella, and Weil-Felix on October 2. On October 8 the blood agglutinations were positive for typhoid O antigen in dilution of 1:20 and were negative for H antigen in all dilutions. The blood Wassermann was negative. Blood cultures were reported to be negative. A roentgenogram of the chest taken on October 13 showed slight engorgement of the lower lobe of the right side; there was also moderate cardiac enlargement. An electrocardiogram taken on October 13 showed sinus rhythm, left axis deviation, and left bundle branch block.

Course.—The patient was given sulfaguanidine and the dehydration was treated with forced fluids. On October 6 he was much improved, taking fluids and food by mouth and having one bowel movement per day. There was no abdominal pain, nausea, or vomiting and he appeared relatively hydrated. Two stool cultures were reported negative by that time. On October 7 the temperature, which had been

likely explanation of this would be a coronary sclerosis accompanied by myocardial lesions. The presence of a left bundle branch block would bear out this surmise.

The diarrhea which was so prominent at the beginning of the terminal illness apparently improved and ceased entirely before death occurred. This would therefore seem to have been a transient episode which might or might not exhibit identifiable lesions in the colon.

Diagnoses.—Cardiac fibrosis, coronary sclerosis; chronic diffuse glomerulonephritis; diffuse degenerative arteriosclerosis; catarrhal colitis.

Discussion of Pathology

Gross Findings.—DR. P. CAREY WHITEHEAD: At autopsy there was moderate edema of the left foot and ankle and the soft tissues overlying the sacrum. On the right side the leg was amputated at the mid thigh, and the stump was well healed. No other significant changes were found.

The peritoneum and pleural sacs were free of fluid.

The pericardium contained no fluid, but there were numerous fresh fibrinous adhesions between the pericardium and epicardium. The heart was enlarged, and weighed 600 Gm. The increase in size was due largely to dilatation and hypertrophy of the left ventricle. An aneurysm of the anterior wall of the left ventricle was found, measuring 4 by 3 by 2.5 cm., at the site of a healed infarct. On the endocardium of the aneurysm were found two old thrombi.

In the aorta there was marked arteriosclerosis, and the coronary arteries showed marked sclerosis, with narrowing of the lumina of all of them, and occlusion of the descending branch of the left coronary about midway between its origin and the apex.

The lungs were the seat of lobular pneumonia in the lower lobes.

The liver was yellowish and greasy on section. The gallbladder contained several pigment stones; the mucosa was found to be thickened.

On opening the gastrointestinal tract a small erosion was found in the esophageal mucosa in the lower one-third. The distal one-half of the colon contained free blood, and several areas of ulceration were found in places in this portion of the bowel. The rectum contained several lesions.

The left kidney was found to be slightly enlarged, and weighed 100 Gm. At the time of the autopsy it was very pale and had a yellowish-pink hue. The surface was finely granular after stripping the slightly adherent capsule.

The cortex and medulla could not be differentiated. The cortical striations were faint

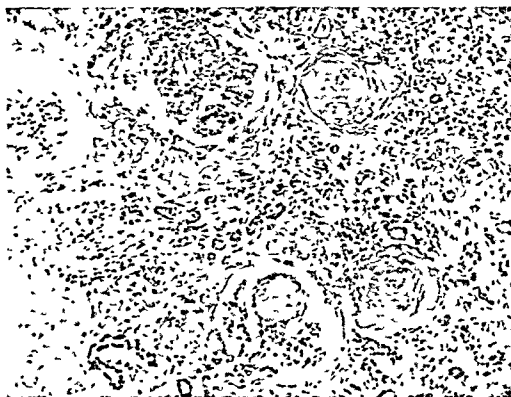


FIG. 1. Photomicrograph of different stages of intercapillary glomerulosclerosis. In Fig. 1, two of the glomeruli contain the characteristic ball-shaped deposits of connective tissue which begin in the intercapillary connective tissue.

in places and absent in others. Examination of the renal artery showed it to be moderately sclerotic. The right kidney weighed 150 Gm. but was otherwise similar to the left. These findings were not considered characteristic of any one disease process because they have points common to chronic glomerulonephritis, arteriolo-nephrosclerosis, and intercapillary glomerulosclerosis.

No significant changes were found in the other organs.

Microscopic Findings.—DR. IRVING GRAEF: The essential pathologic findings relevant to the clinical symptoms and signs were limited to the heart, pancreas, and kidneys.

The microscopic preparations of the left ventricle and coronary arteries confirmed the gross impression that there was an organized, old thrombus in the anterior descending branch of the left coronary artery. Both the left and the right coronary arteries were the seat of considerable atherosclerosis, with variable narrowing of the lumina. The intraventricular thrombus was fused imperceptibly with the scarred endocardium overlying the healed myocardial infarct.

In the pancreas, none of the islands of Langerhans in a single sample section exhibited hyaline degeneration like that seen in diabetes.

The renal lesion is a complex one presenting a variety of changes which may be listed in the order of their importance. There is universal arteriolar sclerosis of the type commonly seen in benign arteriolar nephrosclerosis. The glomerular changes vary. There are completely hyalinized and fibrotic glomeruli, which may well be the end stage of ischemic fibrosis secondary

In summary, this patient was admitted with a severe diarrhea, which was regarded at first as an intestinal infection associated with dehydration and extrarenal azotemia. He was treated with sulfaguanidine, with apparent improvement. It soon became clear that the patient was getting progressively worse. We then suggested a diagnosis of uremia with *uremic colitis* on the basis of a chronic glomerulonephritis. This led to an investigation of his previous records, in which evidence of renal disease was found. On one occasion a diagnosis of intercapillary glomerulosclerosis was suggested. However, congestive failure seemed to dominate the clinical picture during the previous admissions. The patient finally died in a state that appeared to us to be like a progressive uremia.

DR. HERMAN O. MOSENTHAL: The interpretation of the signs and symptoms of this case presented three aspects. These are: (1) diabetes mellitus; (2) uremia; and (3) cardiac failure.

The bald statement is made that in 1939 there was a history of diabetes of twelve years' duration. There is every indication in the records that this diagnosis is an unwarranted assumption. All the fasting blood sugars were normal, as were at least two glucose tolerance tests. In diabetes the fasting blood sugar may even be within normal limits but the carbohydrate tolerance test never is. The gangrene of the leg, the coronary changes, the albuminuria, and the moderate elevation of blood pressure are all lesions that are frequently complications of diabetes, but that is no reason to insist that the patient had diabetes when the crucial diagnostic procedure—the sugar tolerance test—is negative.

The conclusion that the diarrhea which initiated his terminal illness was a uremic manifestation is a brilliant thought and may be correct, though an appraisal of the clinical features makes me hesitate to accept it. In the first place we are not clear as to the exact definition of uremia. Ascoli's time-honored concept, which is often set up as a standard, describes uremia as a symptom complex consisting of signs of irritation and stimulation of the central nervous system associated with evidences in the urine of renal damage. These ideas were formulated before any tests for renal function were available and it is now realized that most of the cases Ascoli presented in his monograph were in reality instances of hypertensive encephalopathy. Our case had no symptoms of central nervous system injury, so that there is no evidence of uremia or pseudo-uremia (i.e., hypertensive encephalopathy) on

that score. The more modern definitions of uremia explain it as a state associated with a maximal impairment of renal function. In this patient the curtailment of kidney activity had not reached a stage approaching a 90 to 95 per cent loss of kidney efficiency requisite to justify the existence of retention uremia. The blood cell count was 4,100,000; it is invariably much lower when the kidney function is greatly diminished; in fact, a marked anemia precedes the onset of retention uremia in chronic nephritis for many months. The blood creatinine level of 2.5 mg. per cent is much too low to coincide with a maximal degree of impairment of renal function. Finally, a urinary specific gravity as high as 1.015 is not found when renal reserve power is completely abrogated. For all these reasons I believe uremia may be eliminated as a cause of disease in this case. A detailed discussion of this problem is very necessary because the diagnosis of uremia (and, for that matter, of diabetes) rests almost entirely upon the clinical findings and not upon the pathologist's examination.

As for the kidneys, there was a history of a long-standing albuminuria and hypoproteinemia—that is, a nephrosis. In addition there was a moderate elevation of blood pressure and impairment of kidney function. The two latter findings point to a chronic glomerulonephritis being engrafted on the nephrosis, which is a common enough occurrence. The supposed history of diabetes has led to the conclusion that this is an instance of intercapillary glomerulosclerosis, a lesion first described by Kimmelstiel and Wilson, and named after them. It is very difficult for a doctor, like me, largely concerned with clinical medicine, to arrive in the clear concerning "intercapillary glomerulosclerosis." Some pathologists claim that it occurs only occasionally in diabetics, while others claim that it is found in one-third of all diabetics and is the most reliable microscopic tissue investigation through which the diagnosis of diabetes may be suggested. On the other hand, all acknowledge that it is occasionally found in nondiabetics and some standard textbooks describe it as a prevalent lesion of chronic glomerulonephritis. If intercapillary glomerulosclerosis proves to have been present in this case, I believe it supports the thesis that this lesion may be found in nondiabetics.

The patient's major symptoms were evidently cardiac. He had time and again been described as a "hypertensive cardiac" case. The blood pressure, fluctuating from 170/110 to 150/80, was not high enough in *itself* to result in cardiac failure. There must have been another element in the situation to bring this about. The most

Special Article

Social Insurance in a Democracy

REINHARD A. HOHAUS, New York City

WHAT are the origins of the tragic upheaval the world is undergoing? What measures should be taken in the postwar period to prevent a recurrence? Many of you doubtless share my own sense of frustration in attempting to answer these questions. The underlying issues are too great and manifold for ready comprehension. Nevertheless, each of us is making every effort for a better understanding so that he may serve more intelligently in our great cause.

We know we are enlisted on the side of democracy in a fight to the finish. We know that we have had to learn again the great importance of certain principles we had forgotten in whole or in part. We now realize, more clearly than before, that democracy is more than a political creed, more than government of the people and by the people—that it is a way of life dedicated to the freedom and dignity of the individual.

It is indeed fitting that democracy is coupled with the "dignity of the individual," because that expression conveys so beautifully the profound philosophy underlying the proper democratic way of life. Thus it reminds us that the individual by his very nature is a free man and that a democratic form of society means a community of free people banded together in a spirit of mutual respect and self-discipline. Dignity of the individual also calls to mind those spiritual values with which man is endowed by his Creator—values which can be neither granted nor revoked by the State. It confirms our conviction that the common man, together with his fellow-citizens, has the ability and power to direct and mold the future of his country. But it also tells us with equal fervor that with this freedom and power goes responsibility, and that much is expected of the individual if he is to be worthy of the rights with which he was born.

And in so doing, it places definite obligations upon the individual in at least three directions—to himself and his family, to those for whom and with whom he works, and to society as represented by his fellow-citizens and himself and the agencies they have set up for their common good.

In the forefront of these responsibilities is that

of providing a reasonable amount of security against the major hazards of life. They include death, dependent old age, accident, sickness, and unemployment. The role which ordinary, industrial, accident and health, and group insurance can and do play in enabling the individual to secure protection for himself, his family, and his coworkers, and the remarkable extent to which our citizens have availed themselves of the opportunities afforded by them, are too well known to you to warrant repetition. That, however, is only part of the story. It still leaves untouched that area in which the individual as a member of society also assumes certain responsibilities for the well-being of his fellow-citizens in times of adversity.

Function of Social Insurance

The depression years brought general agreement that changes in the social and economic structure of our country had made inadequate some of the old methods by which society attempted to meet its obligations, and that major innovations were needed. One of the results was the adoption of the social insurance approach for certain of the major hazards. While that approach was new to this country, it can hardly be considered as a change in basic philosophy, since it is essentially an attempt to set up a more orderly and efficient procedure by which society will continue to carry out responsibilities which it had assumed in the past through other channels.

Social insurance is generally recognized in democratic countries as an essential part of national life and it should have even greater importance when peace is finally restored. Because of that and the many ways in which it affects the institution of life insurance, directly or indirectly, it seems timely to review together some of the questions concerning its present and future status in our country.

Social insurance, as we in America are coming increasingly to understand it, is a new sphere of activity which derives its being and inspiration from a number of widely differing sources. Foremost among these are the fields traditionally ascribed to the social worker, the actuary, the economist, and the fiscal administrator. While drawing heavily on all these, social insurance does

Read at the Thirty-seventh Annual Meeting of the American Life Convention, Chicago, October, 1942. Reprinted with permission of the American Life Convention.

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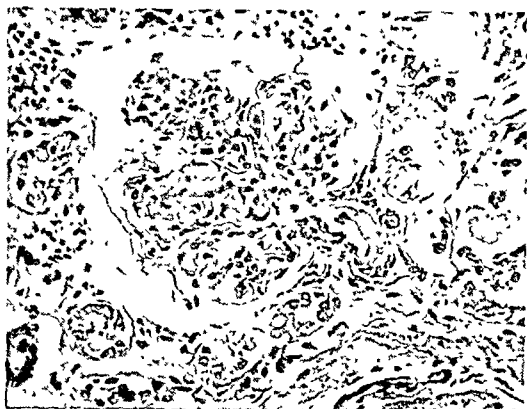


FIG. 2. Photomicrograph illustrates sagittal section through the glomerulus and the terminal portion of the afferent arteriole. The arteriole exhibits considerable sclerotic change in its wall and the glomerulus is the seat of diffuse thickening of the intercapillary connective tissue. Empty patent capillaries may be seen at the periphery of the glomerular tuft. Poor state of the tubules is due to postmortem change, as the necropsy was performed five days after death.

to arteriolar sclerosis. But in addition there are numerous glomeruli presenting a distinctive type of focal or diffuse intercapillary fibrosis (Figs. 1 and 2). Special stains (Masson's Trichrome or the Azan-Carmine stain) show that these fibrous deposits are truly collagenous. The milder lesions furnish the opportunity to locate this process in the intercapillary connective tissue. In the less advanced lesions there is found one or more of the typical spherical "ball-shaped" lesions separating the loops of a single glomerulus. The tubular changes vary from zones of marked atrophy, where the tubules are caught and compressed in scar tissue, to areas of dilatation and hypertrophy of isolated cortical nephrons.

The interpretation of the findings in this case which seems most valid would depend on placing this renal lesion in the new category of renal disorders designated as "intercapillary glomerulosclerosis." This was first described by Kimmelstiel and Wilson,* who observed its occurrence in a group of patients who had the distinctive symptoms noted in this patient's record—to wit: mild diabetes, profound albuminuria, plasmaphoresis, edema, and hypertension. As in this patient, renal insufficiency

may be relative rather than absolute, and death often occurs in a picture reflecting renal insufficiency and heart failure together.

Distinctively, albuminuria is usually profound in the course of the disease, presumably owing to the alterations in the glomeruli, and associated with plasmaphoresis, which was also reflected in this patient's serum albumin-globulin ratio. The question of the diabetes cannot be adjudicated on our morphologic evidence.

It is proper to state that there are some who deny that this lesion is limited to diabetics with hypertension.* On reviewing 75 diabetic patients that have come to necropsy at Bellevue Hospital, I found 12 cases with this renal lesion, an incidence of 16 per cent. Among the 12 cases in this series, there were 5 with clinical signs and symptoms; 4 others had equivocal signs and symptoms; while 3 additional cases had only hypertension. In all 12, arteriolar nephrosclerosis was a consistent renal lesion as noted by Horn and Smetana, too. In some there was an associated pyelonephritis. In the past the clinical diagnosis of amyloid disease was often considered as the best working diagnosis.

With regard to the fall in this patient's blood pressure during the last admission, it may be related to the extensive myocardial infarct.

Anatomic Diagnoses

INTERCAPILLARY GLOMERULOSCLEROSIS.

ARTERIOLO-NEPHROSCLEROSIS.

Dilatation and hypertrophy of the heart, chiefly the left ventricle.

Acute fibrinous pericarditis (uremic).

Hemorrhagic colitis and proctitis (uremic).

Lobular pneumonia, both lower lobes.

Generalized arteriosclerosis, marked.

Renal arteriosclerosis, moderate.

Coronary arteriosclerosis with occlusion of anterior descending branch of the left coronary artery.

Healed myocardial infarction with aneurysmal dilatation of the anterior wall of the left ventricle.

Mural thrombi, left ventricle.

Fatty infiltration of the liver.

Chronic cholecystitis with cholelithiasis.

Ulceration of the esophageal mucosa.

Edema, left foot, left ankle, and sacrum.

Healed mid thigh amputation, right.

* Am. J. Path. 12: 83 (1936).

* Horn and Smetana, Am. J. Path. 18: 93 (1942).

"A medical paper," says Dr. Joe White, of Fort Worth (Texas), "should be like a lady's dress—long

enough to cover the subject, but short enough to be interesting."—*Texas State Journal of Medicine*

buying additional protection from private sources through their private means."

However, much remains to be done by way of developing a proper understanding among those concerned as to the nature of the protection which social insurance should aim to provide, and the way in which private insurance and other agencies can operate to supplement it—and perhaps even furnish it in part. Both types of protection—social and private—have to function in an economic, social, and political environment that is dynamic rather than static. Both must be capable of mutual adjustment as circumstances change and new developments arise. Properly conceived, their functions are complementary rather than competitive. They should engage each other like well-adjusted gears cooperating to a common end, not clash like antagonists competing for survival.

Social Insurance in the United States

Social insurance as practiced or discussed in the United States may be divided into the following categories:

1. Provision for old age and for dependent survivors at death.
2. Unemployment insurance.
3. Health insurance.

1. OLD-AGE AND SURVIVORS' INSURANCE

The Federal Old-Age and Survivors' Insurance Plan incorporated in the United States Social Security Act through the amendments made in 1939 falls in the first category. It represents a decided improvement over the plan originally adopted, especially in regard to the revised scheme of benefits. The social adequacy principle is recognized in the primary benefit formula and in the provision of supplemental benefits for wives and young children. Consistent with that principle are the provisions that monthly benefits are suspended when the person otherwise entitled to them is employed, and that survivors' benefits are not paid to a widow simply because she is a widow, but only if she has young children or has reached age 65. The decision to include employees earning over \$3,000 a year to the extent of \$3,000 a year in preference to excluding them completely was probably based on practical administrative considerations. This has resulted in a fortunate by-product in that the plan has come to be looked upon as truly national rather than one for a particular class, as is the case with at least some foreign plans.

However, the Federal plan is still far from perfect in a number of ways. Changes which should be made when technical and other practical considerations permit, include:

1. Simplification of the benefit and insurance status formulae.
2. Enlargement of the scope of coverage to bring in groups of workers now excluded.
3. Provision for those who become "prematurely superannuated" shortly before age 65 and probably for at least some of the others who become totally and permanently disabled.
4. Further emphasis on "social adequacy," and less on "individual equity," as the benefit criterion.

In addition, more light is needed on the principles which should underlie the financing of the plan.

The Federal Old-Age and Survivors' Insurance Plan and voluntary insurance (including individual and group plans) are each better able to accomplish its objective because of the existence of the other. Experience of the past three years clearly indicates that the basic layer of protection of the Federal plan and the various forms of protection available through private insurance enable and encourage the individual to make those additional provisions for himself and his family which democracy calls upon him to accept as his individual responsibility.

2. UNEMPLOYMENT INSURANCE

While the developments in the old-age insurance field since 1935, when the Social Security Act was originally enacted, and the outlook for further improvements are quite encouraging, we find an entirely different situation as to unemployment insurance.

Here the "social adequacy" philosophy has hardly begun to be appreciated, much less applied. Though there has been a comprehensive attempt on the part of the Federal and State governments to meet a very important part of the problem of unemployment through social insurance, the plans in operation are not based on a proper understanding of the social insurance approach. Benefits are too closely geared to prior wages. Except in the District of Columbia, family responsibilities are completely ignored. Such recognition as given to the social adequacy principle is mainly through the prescribed minimum benefit for those who qualify, irrespective of family status. In general the benefit formulae used result in "over-adequate" benefits for some and decidedly inadequate benefits for others—especially those with dependents, who should be the first consideration of any government which regards the family as the basic unit in its social structure.

Because of abnormal employment and other conditions due to the war, these weaknesses in our unemployment compensation laws have not forced themselves as much on public attention as

not too closely parallel any single one of them. Rather is it a new creation calling for a social outlook that diverges significantly from the familiar paths of the ordinary social worker, requiring an actuarial technic that may sometimes seem rank heresy to the orthodox private insurance actuary, and introducing certain economic and fiscal concepts which may be outside the purview of the "classical" textbooks we read in our student days. Yet through this very process of leaning heavily on and still taking considerable liberties with orthodox theory in all these fields, social insurance represents a new instrument which is being forged to meet certain social problems that must be solved, if we are to maintain our democratic way of life.

There is ample evidence of lack of agreement among experts concerning various major questions present in this new field. Be that as it may, I am convinced that today there is a very encouraging understanding of the proper role of social insurance among the workingmen for whose benefit it exists. The American workingman realizes instinctively that the primary aim should be the assurance of a basic minimum of protection to meet the most fundamental needs of himself and his family—to remove the spectre of want in the day of misfortune over which he has no control. But he certainly does not want that basic protection endangered by an unstable program promising more than it can perform. Nor does he want it subject to humiliating conditions that carry a stigma of pauperism.

Instinctively, too, the worker knows that between government as the guarantor of his personal democratic liberties, responsible for safeguarding the economic and political conditions necessary for their maintenance, and government as a totalitarian monster reaching out for mastery over his body and soul, there is a somewhat problematic no-man's land where eternal vigilance is the order of the day. He knows that in this region there must always be a jealously guarded boundary between what government may and may not do; and that any material departure therefrom may have the unintended effect of imperiling democracy itself. He knows likewise there must be an area in which individual initiative and private enterprise should have ample scope to make their fitting contributions to human advancement, not only materially but in the realm of character. He knows that he, as well as the government, must be willing to accept responsibilities for the well-being of himself and his family.

Principles of Social Insurance

While there is still much disagreement on various aspects of social insurance, we do find in-

creasing acceptance of the following principles:

1. The purpose of social insurance should be to provide, through a government-operated or sponsored plan, protection against one or more major hazards of life which are sufficiently widespread throughout the population and far-reaching in effect to produce large dependency problems for society, and so become "social" in scope and complexion.

2. The protection should be afforded on a dignified basis making for self-respect—usually as a legal right.

3. Being designed to serve primarily society as a whole, little or no latitude should be permitted the individual insured regarding the kind and amount of the protection he may have, or the price to be paid for it.

4. The measure of protection should be "social adequacy" for the insured and their families—that is, it should represent, as far as practicable, a basic layer of protection. "Social adequacy" usually makes it impractical to have "individual equity" for the insured in the sense of a mathematical *quid pro quo* return on account of the contributions made by or on behalf of the individual.

5. With individual equity not required, membership in the plan should be compulsory to minimize self-selection, abuses, and anomalies. Compulsion is also desirable in order to obtain the widest practicable coverage of the population.

Relation of Social to Private Insurance

With benefits related primarily to the individual's and his family's probable minimum needs to keep them from becoming public charges, it is obvious that the level of protection in social insurance may be, and usually is, quite different from that set for the insured in either individual or group insurance. Social insurance is compulsory with uniformity of benefits. Private insurance is voluntary, with each insured setting his own standards of security as to both plan of coverage and amount. This distinction cannot be overemphasized because it makes clear why social insurance and private insurance can, and should, go hand-in-hand in providing the security the individual desires to meet his own needs and circumstances.

The responsibility which is left with the individual has been well stated by Mr. Altmeyer, Chairman of the Social Security Board, in these terms:

"A social insurance system does not and need not undertake to furnish complete protection to all whom it covers under all circumstances. The social insurance approach is to assure that the benefits would provide a minimum protection, leaving to the individuals the responsibility of

cash benefits in event of accident or sickness, for hospital expenses, or for benefits in event of surgical operations, while plans offering insurance in one form or another for general medical care have met with a relatively limited response?

Should medical care protection be on the basis of providing the services in kind, or should it be on a reimbursement basis for part or all of the charges to the individual by the physician or institution in question? If services in kind, how should the doctor be compensated—by salary, on a per capita panel basis, or on a fee-for-service basis? Should the plan be entirely under medical control or should there be lay participation in its management?

Should a health insurance plan limit itself to care for the disabled, or should it also include health education, periodic examinations, and other preventive work supplementing, or even replacing, that now being done by Federal and State Public Health and other agencies?

However you answer these and other related questions too numerous to mention, you can probably find recommendations of experts to support your conclusions. Even if we turn for light to Great Britain, which adopted its first National Health Insurance Act in 1912, we find the whole matter under intensive study by a special Inter-Departmental Committee now conducting a comprehensive survey of social insurance and allied services under the Chairmanship of Sir William Beveridge. The scanty reports being received indicate the likelihood of recommendations for very major changes in the present setup.

The central problems that call for solution have been compressed by Owen D. Young into the following statement:

"The problems of illness are medical, economic, and social. The sick person needs a doctor, and perhaps a hospital. He also needs food and shelter, for himself and family, at the very time when the illness may have cut off his income. And he needs these things by methods not demoralizing to himself or the community, not unfair to the medical profession and not incompatible with the essentially individual nature of medical care."

Thus a cash benefit to replace part of the loss of income during disability is by no means the only, or even the major, phase of the health problem. Judging from the discussion and controversy that have centered around it, the provision of medical care, on this continent at least, would seem to be a far more troublesome and perplexing matter, not only for the average citizen who wants it, but for the numerous agencies concerned in providing it. It is a problem closely bound up with the vital interests of important sections of

the population and with the fundamental relationships which they have to each other. The various branches of the medical professions, their patients, hospitals, employees and their employers, the self-employed, insurance companies, fraternal societies, hospital service plans (which probably have about ten million participants) and other private organizations already making available benefits under the category of medical care or related services, the general taxpayer, government at various levels—are all deeply involved. And when medical care is tied in with the problem of cash benefits the difficulties are only multiplied and enhanced. And if not tied in, then one set of difficulties disappears only to be replaced by another set.

(a) *Social Adequacy in Relation to Health Insurance.*—In view of the foregoing comments, it is not surprising to find that the social insurance principle of social adequacy encounters more complications in attempting to apply it to the current situation in the health field than are present in the old-age, survivorship, and unemployment fields. One reservation should, however, be noted. These added complications probably do not apply to the preventive aspect of that complex of individual and community health problems of which "health insurance"—in the sense of a cooperative effort to secure cash benefits or provide medical care during disability—can claim to be but a partial answer.

The "preventive" aspect in its more elementary phases—sanitation, epidemic control, and various other normal activities of the public health authorities—has long been regarded as a proper field for governmental action. We now find prevention no longer limited to just the avoidance of disease, but also including the more positive function of maintaining health and well-being at a high level of efficiency. It includes nutrition education, recreation, and physical training, no less than immunization and a yearly check-up. In this more advanced sense of a seeking after positive health we find government assuming an increasingly vital role—the importance of which has been greatly enhanced by wartime conditions. Here if anywhere, government does not need to be too meticulous about drawing a line between what is merely adequate, and what may be described as additional or supplementary. Positive health promotion of a public or community nature is one field in which an intelligent and nonoverlapping mutually beneficial "rivalry" between government and private enterprise is entirely practicable and of inestimable advantage to all.

On the other hand, where the question is one of definite health benefits—in cash or in kind—to disabled individuals, the determination of the

would otherwise be the case. In the postwar period they will doubtless become increasingly serious, until suitably dealt with. Their solution need not present insuperable difficulties. The main requirement would seem to be a wider application of the principles already being used in the Federal Old-Age and Survivors' Insurance Plan—e.g., a better social adequacy minimum, allowance for dependents, and employee contributions. A decided change in emphasis from "individual equity" to "social adequacy" for the benefits and a general sharing in the cost by employees, as well as employers, should also serve to dispose of the recurring "experience rating" controversy.

The present lack of interest in the unsound provisions of the existing unemployment insurance plans is doubtless due in large measure to the large funds which have accumulated under the State plans through a combination of very unusual circumstances. Such apparent surplus readily leads to unwise liberalization of benefits, which suggests the very discouraging prophecy that sound progress may only be expected when adversity hits the plans. This pessimistic outlook brings to mind an observation made many years ago by a great student of pensions, who, in discussing a somewhat similar situation for a government pension plan, said, "No one can plunder a deficit." However, some hope for earlier progress may be obtained from the fact that the desirability of a benefit formula related to family status has recently been advocated by representatives of at least two important agencies in the unemployment insurance field.

As for individuals supplementing the minimum protection of State plans by additional protection on a voluntary basis, no unusual or difficult problems are involved. The simplest and most direct method is to build up a cash reserve through one of the usual thrift channels. With personal thrift being recognized once more by the Federal government as a very worth-while quality through its War Bond and anti-inflation campaign, it is apparent that the great need for government action in providing protection during unemployment is the revision of State unemployment insurance plans along the lines which will make them social insurance in fact, as well as in name.

3. HEALTH INSURANCE

The third category of social insurance—health insurance—is still mainly in the discussion stage and we find here a very confused situation. Even some of the most fundamental questions are still to be answered. Thus there is disagreement as to the need for a compulsory plan of Government Health Insurance; as to the governmental agencies—Federal, State, or local—which should

apply the compulsion, if compulsion is to be exercised; how the responsibility should be apportioned between such agencies; and as to whether Government itself should set up the organization for rendering service, or merely require individuals to find or create organizations for themselves.

Indeed even as to the meaning of the expression "health insurance" we find differences of opinion. Some of us, in our innocence, may look upon it as simply a mechanism for providing cash benefits during illness, such as the plan recently adopted by Rhode Island. If so, that view is quite contrary to that of an organization which has for many years been in the forefront in the promotion of social insurance in the United States, as evidenced by the following extracts from an article the American Association for Social Security recently published concerning the Rhode Island plan.

"Of serious implications to the future of health insurance is also the fact that the program is not accompanied by any provision for medical services. Cash benefits and medical care are the two phases of the problem created by illness. To deal with one phase alone is valueless if the other is neglected, as has been proved by experience throughout the world. It is well known that the burden of doctors' and other medical bills is often heavier than the loss in wages. It is also axiomatic that the stoppage of wages and the duration of cash benefits must be kept to a minimum by abbreviating the period of illness through medical attention. . . . Any health plan which fails to include provisions for reducing the period of illness by adequate medical care is not only unnecessarily costly but both socially and medically unsound.

"... Ever since its inception, however, the Association has fought opportunistic or half-baked formulas and insisted that social security legislation follow tried and proven principles. Tested by these principles, the Rhode Island scheme reveals itself a dangerous deformity. All announcements to the contrary, health insurance in the United States is still to be born."

"Adequate medical care" in turn introduces other questions besides providing the services of a physician for the insured workman. Does it also mean such provision for his dependents? Does it extend to hospitalization of himself or his family? Does it embrace the cost of drugs, surgical appliances, glasses, etc.? Is maternity an insurable risk? Should provision be made for dental care?

What interpretation should be placed on the fact that millions of individuals have voluntarily become insured with insurance companies, hospital service plans, etc., for weekly or monthly

conventional methods of private practice in peacetime. What will be their attitude after peace is won and they and others in military and naval service return to civilian life?

The debate both within and without the medical profession as to the merits of the existing system of medical care and related services, and of various proposed modifications and alternatives, had been under way for some years prior to our entry into war. Various experiments have been made and some have been eminently successful. As to the others, either the results have been quite unsatisfactory or more time is needed before a definite conclusion is warranted. Even before the impetus of the war, the outlook was that some new procedures for providing medical benefits and distributing their cost would be forthcoming. As already noted, these trends may also be present in Great Britain which adopted the social insurance approach thirty years ago.

(d) *Determination of Any Federal Standards.*—At least some of the advocates of health insurance maintain that the Federal government should assume a more active role in making available a socially adequate minimum of medical care—a matter of very intimate and personal concern to every citizen—and in distributing its costs to lighten the financial burdens on the individual when he or one of his dependents becomes disabled. If such action is taken, what procedure should be used to determine the principles to be followed in deciding to what extent, if any, the social insurance approach is appropriate, and in formulating the Federal standards that are to be generally enforced? All of us will agree that they should not be dictated handed down by a supposedly wise and benevolent government, but rather the outcome of a more democratic procedure in which the interests most vitally concerned are encouraged to make their appropriate contributions.

Any widely acceptable standards can hardly do less than embody a broad consensus of opinion among the groups most vitally concerned, and much greater emphasis should be placed on the fact that these groups include insurance companies (stock and mutual), fraternal organizations, hospital service, and similar organizations for medical care. These institutions have a vast amount of very helpful experience and have made very striking contributions in aiding the individual to handle the economic problems which disability presents.

Without careful planning, the adoption of Federal minimum standards involves the risk of the nation finding itself saddled with a government scheme under which most private health plans will be eliminated, and available medical care, and accompanying cash benefits, will be

reduced to a level of uniformity providing less adequate benefits than would otherwise be available for many people. Any set of minimum standards should therefore make room for at least the best and most widely accepted of current practices. They should harmonize with, not run counter to, national psychology and aspirations. Existing practices or schemes that have achieved real success should therefore be closely studied to see how they may contribute to, and agree with, the appointed standards. Decentralization is of utmost importance to encourage the quality and flexibility which we will wish our procedures to have. Thus a system best fitted for a rural area may be entirely inappropriate for a large city with its concentration of population and vice versa. Other illustrations of the desirability of decentralization and flexibility will readily suggest themselves.

Accordingly, the various means that are admissible as an instrument for giving effect to the body of guiding principles and standards with reasonable economy and efficiency should be carefully and sympathetically considered. For the Federal government's prime interest should be the end to be served—an acceptable minimum of protection for all. It should be interested in means only to the extent necessary to ensure the swift and sure attainment of this end. It should itself operate such means only to the extent that the job cannot be done at least as well by other agencies, whether private or on a lower governmental level.

Conclusions

What, then, are our conclusions as to the present status and the future outlook of social insurance in our country?

As to old-age and widows' and orphans' benefits, our Federal plan has made a good start along sound lines. Desirable changes include those making the principles already present more effective and clarification of the present indefinite policy for financing the plan. Private insurance complements the Federal plan, and each better serves our citizens because of the existence of the other. Continued progress on the course already charted should be the aim for the future.

As to unemployment insurance, basic changes in principles and underlying philosophy are essential. These should come about before the postwar depression, which many foresee as inevitable, but unfortunately the present outlook for such a development is quite discouraging. One must turn for consolation and encouragement to the splendid way in which our countrymen have accepted thrift and "putting one's financial house in order" as a personal responsibility. The present great accomplishments in

proper role of private enterprise—including in that term mutual and stock insurance companies and other nongovernment agencies providing insurance based on the concept of equity for homogeneous groups—and of government plans based on the social adequacy philosophy presents problems still to be solved.

(b) *Alternative or Supplementary Protection.*—The goal of social insurance under the philosophy of "social adequacy" is a minimum basic layer of protection for all. While the function of government would be confined to the furnishing of such a *minimum*, many individuals will not only desire, but presumably be in a position to obtain, more than this. We have seen that individuals and groups of individuals can and do provide greater security for their dependents in case of death, and for old age and unemployment, by supplementing the government minimum through other channels. These "supplementary" provisions are in the form of protection in addition to, and usually independent of, the government benefits. They are not "alternative" provisions in the sense that they might combine the government's and the individual's measure of protection in one single program which would replace the government plan for the particular person involved. It will be recalled that extensive study was given some years ago to the question of having the Social Security Act permit an employer to "contract out"—i.e., to continue his employee retirement plan as an alternative to the Federal old-age plan, and thereby make it unnecessary for him to revise his plan on a supplementary basis to take into account the Federal benefits. It was concluded that this was not practical because of complications arising from the necessity of accumulation of reserves and other factors. However, when the benefit takes the form of medical care, quite a different picture is presented.

New problems arise if the government decides to extend social insurance to the field of health benefits and we are to retain the democratic principle of giving individuals the opportunity of "buying additional protection from private sources through their private means." These problems would seem to indicate that, in many cases at least, the function of private health insurance and private medical care should be in the nature of an alternative method of providing the *entire* coverage which individuals or groups may elect under prescribed conditions, rather than just additional coverage to supplement the basic minimum protection otherwise offered by social insurance. "Supplementary" medical care, carrying on where the compulsory minimum provisions leave off, would surely often complicate matters and unnecessarily harass the

patient by subjecting him to a switch from one system to another, perhaps just at the very time he most needs continuity of treatment. What the effect would be on the quality and effectiveness of the medical treatment is a question for a physician to answer, but I suspect the answer would be far from favorable. When a physician knows that his primary responsibility for a certain case is limited in time or extent, or shared contemporaneously with some other physician or physicians, should we expect his sense of responsibility, of independence, and of initiative in the case, or his personal relationship to the patient, to be keyed to as high a pitch as it otherwise might?

Even if only cash benefits during illness are involved, difficulty arises in dovetailing additional benefits furnished through private channels into a governmental scheme providing the basic minimum. The nature of the risk insured involves relatively greater claim cost than life insurance or annuities, while sound underwriting requires that the total benefits be less than the normal earnings to avoid malingering and abuses. Hence the amount of additional supplementary benefit will often be so low that an excessive part of the premiums for such a benefit will be absorbed in duplicate claim expenses. This difficulty would be avoided if the individual desiring larger benefits than the minimum of the government plan could obtain the entire coverage through an "alternative" arrangement.

(c) *War and Postwar Developments in Medical Care.*—The questions posed are not simply the pros and cons of extending our present social insurance system to health insurance. A number of signs indicate that, irrespective of what the decision is regarding such an extension, the next few years will see a number of major developments and innovations in the provision of medical care. We are told that about one-third of our American doctors and dentists will be in the armed forces by the end of this year. Similar reductions in the civilian supply of nurses and other personnel auxiliary to the medical profession must be expected. Many of us have probably already felt the impact of the resulting changed situation by reason of the accident and sickness of members of our family. Can we safely assume that all of the temporary measures which will be required on account of such shortages will disappear when the war ends? May we not anticipate that experience will show that at least some should be retained permanently?

Then too there will be the exposure of a very large part of the medical profession—especially physicians who have gone from internship to the armed forces—to methods of medical care quite dissimilar in economic and other aspects from the

Case Report

COEXISTENT TYPHOID FEVER AND STAPHYLOCOCCEMIA

FRANK R. MAZZOLA, M.D., F.A.C.P., Jamaica, Long Island, and ARTHUR J. HORTON, M.D., St. Albans, Long Island, New York

THE history of this case is presented with the belief that staphylococcemia coexisting with typhoid fever is very uncommon, a situation made further interesting in this case by the fact that the typhoid fever, which was mild, ran its complete course.

Case Report

The patient, a 17-year-old white boy, was admitted to Mary Immaculate Hospital, Jamaica, Long Island, complaining for four days prior to admission of pain in the right lumbar region and in the right lower quadrant. Three days before his admission, the pain radiated to the right thigh and scrotum. Frequency and urgency, with dysuria, were noted. The pain in the right lumbar region began as a dull ache and increased in intensity until it became stabbing in character. There was no vomiting and no history of injury. One week before his hospitalization the patient had been camping on Long Island. His previous history was one of frequent tonsillitis. Occasional precordial pain was noticed, with palpitation on exertion. No history was obtained of dyspnea or ankle edema. In 1935 the patient had received three injections of typhoid vaccine at the Department of Health, New York City.

On admission to the surgical service, the patient appeared very acutely ill and toxic, with considerable pain, causing him to twist and turn about in bed. The temperature was 103 F. and the pulse 90. Flexion of the neck elicited considerable nuchal pain. The chest was negative. A soft systolic murmur was heard over the apex. The abdomen revealed tenderness in the right lower quadrant but no rigidity. No masses were made out. The liver and spleen were not palpated, but over the right costovertebral angle extreme tenderness was present. It was noted that a partially healed encrusted furuncle was present below the right knee. Urologic consultation was sought by the surgical service, and in turn medical consultation was requested to rule out a meningitis. A blood culture and a flat genitourinary plate were taken. The flat plate was negative. On the day following admission, the patient's temperature rose to 105 F., and the pulse dropped to 86. A leukocyte count, taken on admission, showed 6,700 white cells with 82 per cent polymorphonuclears and 18 per cent lymphocytes. Two days later the count rose to 20,600 with 95 per cent polymorphonuclears. The sedimentation rate was 42 mm. per hour.

The high temperature (now 106 F.) was out of proportion to the pulse rate—104. The pain in the right lumbar region was not so severe, and the patient appeared quite toxic and drowsy. No skin lesions on the abdomen were noted, but the subsiding furuncle below the right knee was still visible. A systolic murmur was heard over the pulmonic

region. The spleen was not palpable. Because of the nuchal pain, a lumbar puncture was done revealing a pressure of 4 mm. of Hg, a clear fluid, a cell count of 1, and a slight reduction to Benedict's solution. A Widal was suggested because of the temperature/pulse ratio and the low white blood count. Stool cultures and blood cultures were also taken. The urine, which had been negative on admission, now showed a 3 plus reaction for albumin, with 4 to 5 white blood cells per high power field.

The blood culture taken two days after admission returned positive for typhoid bacilli, which were also revealed in the stool and urine. The Widal was positive in 1-100 dilution, and two days later became positive in all dilutions. The patient was isolated and placed on a high caloric diet. Meanwhile, the pain in the right lumbar region had become excruciating, and although the tenderness extended to the right loin, right flank, and right upper quadrant, no bulging was noted. X-ray examination revealed no definite outline of the kidney shadows on the right side, and the distended colon covered the psoas muscle line. Rose spots were noted on the abdomen on the sixth day.

For the next three days the condition of the patient remained about the same. He was very toxic and drowsy except when disturbed. A blood culture taken on the eighth day showed no typhoid bacilli, but numerous colonies of *Staphylococcus aureus* and *Staphylococcus albus hemolyticus* were present. On the ninth day fullness in the right flank was noted. The right lumbar space was punctured and aspirated by the G.U. service, but no pus was obtained. Rales were present at the left base with distant breath sounds at the right base. New crops of rose spots continued to appear on the abdomen, persisting for two or three days. Several new pustules were observed on the left arm. Pain began to be present on liver percussion. The temperature varied between 104 F. and 105 F.; with a pulse of from 110 to 120. The white count on the ninth day had risen to 24,800 with 94 per cent polymorphonuclears. It was thought that there was a suppurative process, but its exact site was not determined.

The neck stiffness still persisted, but as a previous spinal fluid examination had been made and was found negative, no further lumbar punctures were done. It was believed at this time that the neck stiffness came from a spasm of the long spinal muscles resulting from an infection in the right flank. A diagnosis of renal carbuncle, as well as typhoid kidney, was considered. Typhoid bacilli were present in both urine and stools on the ninth day.

On the eleventh day following admission, any movement of the patient caused severe pain. The bulging in the right flank was still noticeable, and extreme tenderness continued over this area. The next day, a slight swelling in the region of the thyroid was noted; on the fourteenth day after admission this had become definitely larger, tender, and indurated. The white count rose to 57,000,

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that field will aid the individual participant in meeting the stormy days ahead.

As to health insurance, there is still much unexplored country to be charted, despite all the discussions that have taken place. Following blindly the precedents of our governmental old-age, survivorship and unemployment insurance plans, or of government plans adopted abroad, is not the route we should take. The broad concept that a social minimum of protection against the hazards of life should be governmentally provided, or at least assured, should not be carried over without modification from our pres-

ent social insurance plans to the field of benefits in kind (medical care) because of the intimate and personal nature of the services that may be required in the latter field. Here the role of the Federal government should be one of greater aloofness, confined to assuring that adequate care will be provided, rather than directly participating in the actual provision. Such direct participation would be appropriate only when no suitable agency appears to be available, and where the choice would seem to lie between a bare minimum governmentally provided, and outright charity or nothing at all.

"DOCTOR JONES" SAYS—

"A dirty business"—that's what a state health official said recently about organized prostitution.

And that just about describes it. The venereal diseases and so on (us health officers—of course that's what we're chiefly interested in)—what makes it a still dirtier business: oftener'n not it's the part that shows of a criminal underworld system.

If the women kept the money they made—anywhere from ten or fifteen to forty or more customers on a busy night, so they claim—you could see how, to a mental defective, it might look for a while at least like a profitable job. But the women, they only get part of the proceeds: a small part of it, sometimes, so I've heard, after they've taken out for board and clothes and drinks and what not. The bulk of it: there's the Madams, of course, to be paid and then there's the "big shot" that runs the whole outfit and the "man higher up" (the man lowest down, if you ask me) that's supposed to see to it that the laws aren't enforced: that the places are protected and the public ain't—and so on. And then, there's the—do you remember that book "The Inside of the Cup"—Winston Churchill? (the American—not the British Churchill). That Minister—you remember he cracked down on a member

of his congregation: the fellow that owned the property where some of these houses were? No, sir. I wouldn't say it's the kind of business any self-respecting community ought to tolerate.

Some of these cities—when the pressure starts for closing up these places, somebody most always gets those old arguments out of cold storage: "It's better to have 'em where the doctors can examine 'em"—"if you clean out the district you'll scatter 'em"—"if you close 'em your daughters won't be safe"—all that junk. If a doctor examined every one of 'em every day it wouldn't prevent 'em spreading disease. If they're scattered and kept moving they can't do much business. Commercialized and segregated prostitution is organized crime. From what I read experience has shown not only that decent women and girls are safer where it don't exist but that when these houses are closed up (by an honest administration) there's less outside prostitution and not more.

Of course there's the problem of treatment and rehabilitation and all that. But as for cleaning 'em out: there's plenty of legal machinery. But they ain't liable to need it if the right fellow says "Git!" and let's 'em know he means it.—Paul B. Brooks, M.D., *Health News*, December 7, 1942

MARKLE FOUNDATION FURTHERS TEACHING OF TROPICAL MEDICINE

The Association of American Medical Colleges has received \$25,000 from the John and Mary R. Markle Foundation for a program to improve instruction in tropical medicine in medical schools in the United States and Canada. Every medical school has been offered an opportunity for two members of its faculty to attend a two-month course.

The development of this program is in charge of a committee on tropical medicine of the Association

of American Medical Colleges. The committee consists of Drs. Henry E. Meleney, Herman M. Biggs, professor of preventive medicine, New York University College of Medicine, chairman; Malcolm H. Soule, Sc.D., professor of bacteriology and head of the department, University of Michigan; and Dr. Hiram W. Kostmayer, acting dean, Louisiana School of Medicine of Tulane University, New Orleans.—*J. Med. Soc. Co. N.Y.*

typhoid dropped to 4.4 per 100,000. In 1918, however, the rate had risen to 30 per 100,000.

Typhoid usually runs a milder course if the disease occurs following prophylaxis. Webb-Johnson reports 3.38 per cent mortality in vaccinated cases, with 7.55 per cent complications, as against 19.19 per cent mortality, with 35.69 per cent complications in unvaccinated cases. Vaughan, in a report

of typhoid in the A.E.F., reports a mortality of 11 per cent in vaccinated cases.

The typhoid fever in this case appeared to follow a true clinical course and seemed to be mild.*

* The authors wish to thank Drs. Erskine and Furey of the Pathology Department of the Mary Immaculate Hospital for their kind cooperation.

CHRONIC EXHAUSTION INCREASING AMONG TEST PILOTS

The discovery of an increased incidence of chronic exhaustion in test pilots as compared with that in transport pilots led Jan H. Tillisch, M.D., and Maurice N. Walsh, M.D., Rochester, Minnesota, to make a study of the condition from which they conclude that several things can be done to prevent this chronic exhaustion state.

They point out that when one considers the nature of a test pilot's work the increased incidence of chronic exhaustion is not surprising.

"We use the term 'chronic exhaustion state' because we do not believe the functional disturbances encountered in a pilot are any different from the functional disturbances encountered in any other high-tensioned person subjected to overwork and prolonged emotional strain. The human nervous system behaves as if it were a storehouse of potential energy. When its store becomes depleted, symptoms of exhaustion make their appearance and if the person is subjected to long-continued mental fatigue, recuperative processes do not have the opportunity fully to restore the nervous energy that has been utilized, so that he is forced to rely on a special reserve store, which may be called the 'nervous energy reserve' and which is intended to be used only for emergencies. . . . In time depletion of this nervous energy reserve occurs, and the manifold symptoms of chronic exhaustion appear. The most common of these symptoms are the following: chronic fatigue, a feeling of inward tension and uneasiness, anxiety, difficulty in concentration, insomnia, irritability, headache, gastrointestinal disturbances, and a generally increased awareness of and a preoccupation with bodily processes. . . ."

The two physicians examined 20 pilots doing test flying and 12 of them were found to be suffering from a chronic exhaustion state. In 4 of the 12 this was of sufficient severity to interfere seriously with their flying an airplane or to stop their flying entirely. All of the 12 pilots suffered from exhaustion, 7 from anxiety, 5 from mental depression, 8 from functional gastrointestinal disturbances, 4 from loss of confidence in flying ability, 3 from insomnia, 5 from irritability, and 2 from headaches. The 4 pilots whose symptoms were sufficiently severe to interfere with their flying were older than the remaining 8 and had been test pilots for a longer period. With a vacation period these 8 pilots returned to normal.

Commenting on their study the two physicians say that "At first thought one may reason that a high incidence of chronic exhaustion is to be expected in all professional aviators. Yet, in a group of 103 transport pilots similarly studied by one of us with an associate there was not a single incident of a

chronic exhaustion state. Therefore, the exhaustion cannot be attributed to flying alone. Nor can we attribute it to high altitude flying alone, as the onset of the exhaustion did not always occur when a man was doing high altitude work. But it did occur with long hours of hard work without vacations and with the emotional strain of flying a new, and at times hazardous, airplane. It is the etiologic (causative) factors that are different; the end result is the same. It must be kept in mind, however, that other factors also can play a part in causing exhaustion in pilots. Aviation, and especially test flying, attract high-strung persons who are more susceptible to functional disturbances than are average men. Social or financial maladjustment is a prolific cause of chronic fatigue. A pilot, as he gets older, worries about his physical fitness for carrying on his work, and this again may be a source of functional disturbances.

"Several things can be done to prevent this chronic exhaustion state. Good physical condition should be assured by frequent medical examinations and correction of defects. At least eight hours of sleep a night should be obtained. A pilot should keep himself in good physical condition by regular exercise. . . . All pilots who fly high-powered machines and operate at high altitudes, as do test pilots, should have frequent rest periods. For test pilots a rest of at least one week in each seven is recommended. In our experience frequent short vacations have been of much greater value to a pilot than infrequent long vacations. The importance of hobbies in securing mental relaxation should be emphasized, and a pilot should be encouraged to cultivate some. The most satisfactory hobbies are those which are not related to one's everyday occupation and which involve making something with the hands or forming collections. The indiscriminate use of sedative agents by pilots in an effort to dissipate nervous tension cannot be condemned too strongly. A sedative should be taken only when it is prescribed by a physician. The continued use of stimulants, such as alcohol or amphetamine sulfate, is dangerous, as either one may lead to errors of judgment.

"The time taken to train a test pilot and his important role in the development and production of modern airplanes make it paramount that this group of men be maintained in the best of physical and mental condition. Because test pilots undergo the physical and emotional stresses compressed into a short period to which the entire pilot profession is subjected over a longer period, study of this small group may yield a greater insight into the problems of the entire profession."—A.M.A. News

with 95 per cent polynuclears. Acute suppurative thyroiditis was considered and was confirmed by both surgical and otolaryngologic services. Dyspnea was not very marked. A transfusion of 500 cc. of citrated blood was given. Treatment with bacteriophage prepared from the organisms secured from the blood culture was begun.

On the fourteenth day, the patient appeared more toxic. Petechiae were noted in the right conjunctiva.

The thyroid swelling was slightly larger and showed definite fluctuation. The pulse rate rose to 120, and an apical systolic murmur was heard. An endocarditis was considered at this time. Posteriorly, rales were heard in both lungs, particularly at the left base. A patch of bronchial breathing was heard over this area also. The tenderness in the right lumbar region was somewhat diminished. A small mass was palpated in the right lateral epigastric region, but because of the critical condition of the patient, exploration of the same was not carried out.

Urologic consultation at this time stated that no evidence of perinephritic infection was present. The white count was 51,700 with 94 per cent polynuclears, and the red count was 3,750,000 with 74 per cent hemoglobin. Many toxic granules were noted in the smear.

On the fifteenth day the patient became extremely toxic; the respiratory rate was 66, and the pulse rate was 168. Coarse moist rales were heard throughout the chest. His condition remained critical throughout the day. Early the next morning he became comatose, was in pulmonary edema, and had a temperature of 107 F., expiring at 11:30 A.M.

Postexamination

An extensive uniform bulging of the neck was noted in the region of the thyroid. Both lobes of the thyroid were enlarged, and most of the thyroid tissue had been replaced by a homogenous yellow inspissated material.

Thin fluid was present in the left pleural cavity. Patches of thin filmy adhesions were found over small nodular swellings scattered over the lung surfaces. An abscess cavity extending from the twelfth thoracic to the second lumbar vertebra was discovered when the medial lumbocostal arches of the diaphragm were freed, destroying partially the body of the first lumbar vertebra. In addition, the first portion of the psoas major muscle and its fascia were destroyed. Thick yellow pus was present in the cavity and also in the right azygos vein.

When the heart was examined, a patent foramen ovale with friable brownish vegetations on both sides of the septal opening was discovered. On the right cusp of the mitral valve a vegetation of the same character, 3 mm. in diameter, was present.

Nodular areas, yellowish to deep red in color, and from 1 to 3 mm. in diameter, were scattered over the surfaces of both lungs. Small abscess cavities filled with thick, yellow pus were found deep in the lung parenchyma.

In the region of the terminal ileum two areas, each 12 mm. in length, revealed marked mucosal hemorrhage and hyperemia. The Peyer's patches were not remarkable. The spleen was very soft, being a yellowish white color over its superior and

medial aspects. Both kidneys were enlarged and soft; yellowish nodules containing thick yellowish pus were present in both cortex and medulla. A small prostatic abscess was present, as well as an enlarged and purulent right epididymis. A healed, crusted lesion measuring 1 cm. in diameter was noted just below the right knee.

Postmortem bacteriologic examination revealed *Staphylococcus aureus* and *albus hemolyticus* in the heart blood; *B. coli* were also present in the abdominal pus. The free pus in the abscess cavity was positive for *Staph. aureus hemolyticus*.

Microscopically, most of the thyroid tissue was necrotic; infiltrated with plasma cells and mononuclears.

A triangular area of lung infarction was discovered in the right lower lobe with old hemorrhagic elements, edema, and dense infiltration with pus cells and staphylococci groups.

Section of the interauricular septal defect revealed a fibrinous exudate on the endocardium of the right auricle densely infiltrated with pus cells. These pus cells extended through the endocardium and into the muscularis for a short distance. The myofibrils showed granular degeneration and a brownish pigment at the nuclear poles.

Kidney tissue revealed several small areas of metastatic abscess in both cortex and medulla. Sections of prostate, testes, and epididymis were similar. Azygos vein sections near the region of the paravertebral abscess noted fibrinous necrotic material replacing the intima.

The ileum showed areas in which the surface was denuded, with considerable remaining glandular epithelium. There were no areas of Peyer's patches. Vascularity of the mucosa was increased, and there was free hemorrhage into the mucosa and on the surface.

Final Pathologic Diagnosis

1. Staphylococcemia with multiple abscesses in kidneys, lungs, paravertebral region, prostate, epididymis, testes, and thyroid.
2. Endocarditis (vegetative).
3. Splenitis—acute.
4. Granular degeneration of liver.
5. Typhoid fever (third week).
6. Myocardial degeneration.
7. Suppurative phlebitis azygos vein.

Conclusion

Late complications of typhoid fever are of common occurrence in the literature, but reports of practical coexistence of typhoid fever and staphylococcemia are almost unavailable. It is felt in the above reported case that the lowering of the patient's resistance by the typhoid infection apparently precipitated the staphylococcemia.

The occurrence of typhoid fever following typhoid prophylaxis is rare; Cook, in the *Naval Medical Bulletin*, reports a total of 895,680 inoculations given, with only 75 cases being reported from 1924 to 1933. In the U.S. Army following compulsory inoculation in 1912, the rate of cases developing

from England, describe more than a year of service in the Emergency Medical Service of the British Ministry of Health. The society discussed plans for establishing an emergency fund for the benefit of families of doctors killed or injured in service and also approved appointment of committees to discuss gas rationing with officials of the Broome County Price and Rationing Board and to study the narcotics and drug addict problem.

Dr. Warner, daughter of Mr. and Mrs. Frank E. Warner, of Binghamton, told of conditions in English hospitals which became so acute during enemy bombings that in some institutions it was necessary to place three and four patients in a bed.

She served on the staffs of several hospitals during her stay in England. In the Royal Southern Hospital in Liverpool, she said, many of the beds consisted of iron cots with straw mattresses, heating was inadequate, and the staff worked nightly with very little light.*

Dutchess County

Dr. Emil L. Stoller, of Poughkeepsie, was elected president of the county society at its annual meeting at the Hudson River State Hospital on January 13. He succeeds Dr. Edgar F. Powell, of Fishkill.

Other officers elected for the year were: Dr. Harry A. LaBurt, superintendent of the Harlem Valley State Hospital, vice-president; Dr. Albert A. Rosenberg, of Poughkeepsie, secretary-treasurer; Dr. Joseph L. Cummings, associate secretary; censors, Drs. Alva L. Peckham, Howard P. Carpenter, Gilbert S. Tabor, L. Edward Cotter, and Julius Haight; delegate for two years, Dr. Scott Lord Smith, with Dr. Samuel E. Appel holding over as a delegate; alternate delegate for two years, Dr. Chester O. Davison, with Dr. Aaron Sobel holding over; counselor, Dr. Leonard K. Supple.

Dr. Rosenberg succeeded Dr. John F. Rogers, now a major in the U.S. Army Medical Corps, as secretary-treasurer. Dr. Carpenter, who held the post over a long period prior to Dr. Rogers' election, had been serving temporarily in the post.

The scientific paper was given by Dr. Joseph S. Lawrence, executive officer of the State Medical Society, who spoke on the "Family Physician of Tomorrow."

Dr. Stoller has practiced in Poughkeepsie since 1926. He is at present an assistant surgeon on the staffs of Vassar Hospital and the Hudson River State Hospital.*

Greene County

A meeting of the county society was held at Memorial Hospital on January 12 at 9:00 p.m. Matters of interest to physicians of the county were discussed.*

Jefferson County

The regular monthly meeting of the county society was held on January 8 at the Black River Valley Club, following dinner at 6:30 p.m.

Four-minute addresses were given by members of the society.

The four-minute speakers and the topics of their addresses were: Dr. H. N. Cooper, "Pressure Treatment of Burns"; Dr. D. G. Gregor, "Advance in the Treatment of Carcinoma of the Prostate"; Dr. N. L. Hawkins, "Active Immunization Against Tetanus"; Dr. W. W. Hall, "Dicoumarin, a New Drug"; Dr. Garner Scullard, "Use of Serum in

Influenza Meningitis"; and Dr. G. S. Nellis, "Industrial Hygiene."*

Kings County

Physical examinations for men drafted into the armed services, heretofore, in many cases, given in the homes and offices of Brooklyn physicians, are now being taken by large numbers of registrants in hospitals and dispensaries throughout the borough, according to Col. Samuel J. Kopetzky, chief of the medical division of the New York City Selective Service System.

Colonel Kopetzky disclosed that the transfer in Brooklyn is part of a city-wide plan to move all examinations from draft board headquarters and the homes and offices of private doctors to hospitals, where better facilities, volunteer nurses, free light and heat, and volunteer clerical help are available.*

The second annual president's dinner of the Medical Society of the County of Kings was held in the Waldorf-Astoria on January 28. Dr. Charles F. McCarty was chairman of the dinner committee.

Dr. William C. Meagher, retiring president, was presented with a medal and scroll by Dr. George W. Cottis, president of the Medical Society of the State of New York.*

Nassau County

Five Nassau doctors will serve on the advisory medical board of the Adelphi College School of Nursing.

The first class of the new institution, one of seven established throughout the state as New York's contribution to the war-emergency nurse-training program, opened on the Garden City campus on February 1.

The medical board, nominated by the Nassau County Medical Society and appointed by the college trustees, are: Dr. Benjamin W. Seaman, chairman, a director of Meadowbrook General Hospital, head of the surgical staffs of Nassau Hospital, and North Country Community Hospital, and a former president of the medical society; Dr. Everett N. Whitcomb, of Port Washington, president of the medical society; Dr. Louis H. Bauer, of Hempstead, speaker of the House of Delegates of the State Medical Society; Dr. Arthur C. Martin, of Hempstead, twice president of the medical society; and Dr. Louis A. Van Kleeck, of Manhasset, former president of the society.*

Tribute was paid to the founders of the Manhasset Health Center by Dr. L. A. Van Kleeck, one of the speakers at a luncheon on January 18 at Plandome Gardens, which marked the twenty-fifth anniversary of the organization. Among the guests were Mrs. Charles M. Niesley, widow of the founder of the Health Center, and several past presidents. Mrs. A. O. Eldridge presided.*

During 1942 Nassau County recorded 6,874 cases of infectious diseases, 8,658 cases fewer than were reported for the year 1941.*

New York County

The interesting report which appears below came to us following the testimonial dinner given to Dr.

* Asterisk indicates that item is from local newspaper.

Medical News

Painless Childbirth Claimed for New Technic

COMFORTABLE and painless childbirth, which is safe for both mother and child, is claimed for the new "continuous caudal analgesia" technic recently developed by Dr. Robert A. Hingson and Dr. Waldo B. Edwards, officers of the United States Public Health Service, who are stationed at the Marine Hospital at Stapleton, Staten Island.

However, both the physicians who developed it and the *J.A.M.A.* cautioned that the method should be used only in hospitals and only by doctors specially trained in this particular technic, and that there are certain types of cases in which it should not be used.

Physicians who have used it described it "as the best method yet devised," "100 per cent effective," "perfect painless childbirth," and apparently "the last word in obstetric analgesia."

The new method has been in use less than a year. It involves injection of a solution of metycaine, a cocaine substitute, into the cauda, which is at the lower tip of the spine. A special apparatus devised by the physicians is used and the injections are given

every thirty or forty minutes throughout the entire course of labor.

The pain-killing drug bathes the nerves at the end of the spine, but does not enter the membranes covering the spinal canal, with the result that the anesthesia does not cause loss of consciousness or hinder muscular movements which have a part in voluntary delivery of the baby.

The method was first used at Staten Island on January 6, 1942, and since then has been tried in nineteen clinics associated with medical schools and well-established hospitals.

"Altogether some 589 women have been delivered of babies by this method without maternal mortality and with but three instances in which infants died—these without reference to the method of analgesia that was employed," the *J.A.M.A.* said.

The journal, commenting that relief of childbirth pain has been one of the medical profession's long-sought goals, termed the method "a real advance" and published comments from other physicians who have tried it.

Planned Parenthood Federation Gets \$50,000 Gift

TO HELP us win the war by curbing illness among women war workers, Albert D. Lasker, retired advertising executive and former chairman of the United States Shipping Board, has given \$50,000 to the Planned Parenthood Federation of America, Inc.

The gift is the largest single contribution ever made to the 21-year-old organization and marks the opening of a drive by the federation for \$289,693 "to carry forward a health and public education program which contributes directly to America's war effort."

When he turned over a check for \$50,000 to Richard N. Pierson, president of the federation, Mr. Lasker discussed his reasons for the gift.

"A race that is vigorous, healthy, happy, and self-reliant is the real hope of democracy and lasting peace," he said. "It is my conviction that once planned parenthood is made a part of our public health and welfare services, more healthy children will be born to maintain the kind of peace for which we are fighting."

"Through its national program, the Planned Parenthood Federation of America can make clear the importance to the immediate and future well-

being of the country of child-spacing.

"I have always been a firm believer in the ability of democratic men and women to discern for themselves the truth—once the facts have been made available. At present, child-spacing information is still too largely available only to the privileged few, and not the great majority which numbers among it those who need the information most."

"Planned parenthood has made great strides in the past. Leaders in federal, state, and county health programs now recognize its importance to any health program. The medical profession also is beginning to recognize its importance to the whole field of preventive medicine. The objectives are now plainly in view—but there remains much concentration of time, energy, and effort before they can be reached."

Mrs. Lasker, who is secretary and a member of the board of directors of the federation, emphasized her husband's words by pointing out that production in some of the largest war plants had been seriously hindered by ill health among women workers. In one of the largest plants, she said, the abortion rate among women, on the basis of reported cases only, had jumped to 27 per 1,000 women workers.

County News

A list of the officers of all of the county societies appears on page 378.—Editor

Albany County

A meeting of the county society was held on January 27 in the Albany College of Pharmacy at 8:30 P.M.

The scientific session featured an address on "Suppurative Diseases of the Chest" by Adrian A. Ehler, M.D., of Albany, which was followed by general discussion.

Allegany County

Dr. L. S. Benedict, of Wellsville, has been named a director of the county laboratory, to succeed the late Dr. F. E. McCarty.

Broome County

Members of the county society on January 12 heard Dr. Florence Warner, who returned recently

ress that is being made in the fight against pneumonia, the reporting of this disease to the Department is now feasible and necessary."

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The following physicians were elected officers of the New York Physical Therapy Society for the ensuing year at the meeting held on January 6: president, Harold Neifeld; vice-president, Charles G. Buckmaster; treasurer, Richard Kovacs; secretary, Madge C. L. McGuinness; executive committee, Stella S. Bradford, Karl Harpuder, Michael J. O'Conner, Jerome Weiss, and Lewis J. G. Silvers, chairman.

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The New York Chapter of the American Red Cross needs 7,500 pints of blood weekly, an increase of 2,500 pints over its previous quota, to meet the total national requirement of 4,000,000 pints in 1943. Col. Earle Boothe, director of the blood-donor service of the chapter, announced recently.

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Control of disease on a world-wide scale is a necessary part of the postwar program, Dr. J. Stanley Kenney said on January 25 in his inaugural address as president of the Medical Society of the County of New York at the New York Academy of Medicine.

Dr. Kenney stated that many areas of the world have been lacking in disease prevention and public health methods—areas which today are being entered by members of the United States armed forces.

"Because of the rapid modes of transportation and the constant interchange of peoples," he said, "we are no longer isolated, and those pestilential diseases that are endemic in those far-away places might become a real concern here at home."

During his tenure of office he said the society would keep itself informed and weigh carefully various proposals for postwar settlement.

But Dr. Kenney also pointed out the need for a health rehabilitation program in the United States. "Statistics published during the last year and a half as a result of selective service," he said, "have aroused the nation out of its complacency. More medical care is needed to improve and correct many of the defects and diseases which examination reports have brought to light."

"The labor shortage and demands for workers in essential war industries reveal the tremendous need for a rehabilitation program in this field. In the near future a national program will have to be promulgated."

The society will promote the acceptance by the public of medical expense insurance, Dr. Kenney said, using its influence and authority to put it into successful operation in New York County. "Adequate medical care must be furnished the public at a cost they can afford, and this cost must be spread over large groups to reduce the expense to the individual patient," he said.

Dr. Maximilian A. Ramirez is the retiring president of the county society.*

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Mrs. Chasis was graduated from Vassar College and New York University College of Medicine and is now interning at Bellevue Hospital. Her husband was graduated from Syracuse University and New York University College of Medicine, where he is assistant professor of medicine.*

Oneida County

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Onondaga County

"Nutrition and Cancer" was the subject of a lecture by Dr. Cornelius Rhoads, director of Memorial Hospital for treatment of cancer and allied diseases in New York City, on January 7 in the auditorium of the College of Medicine, Syracuse University. The audience was composed of Syracuse doctors and students in the College of Medicine and College of Home Economics.*

Oswego County

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Other officers are: Dr. Harold J. LaTulip, Oswego, vice-president; Dr. Harold F. McGovern, of Fulton, secretary-treasurer; Dr. Harrison M. Wallace, censor for three years; Dr. Olin Mowry, of Minetto, member of the legislative committee; and Dr. K. Wood Jarvis, member of the public relations committee.*

Queens County

A stated meeting of the county society was held on January 26. Dr. Virgil H. Moon, professor of

A. Bern Hirsh, who has just retired as managing editor of the *County Journal*:

Recognition of many years' service for the profession and the public marked the testimonial dinner given Dr. A. Bern Hirsh on Thursday evening, January 28, at Hotel Savoy-Plaza, by New York City medical and other leaders. Dr. Chas. Gordon Heyd was toastmaster and various speakers dwelt on the many-sided activities so long rendered the community by the evening's guest. Among these was Col. Samuel J. Kopetzky, medical chief of the Assignment and Selective Service of the metropolitan area, who told of his twenty years' association with Dr. Hirsh as coeditor of *The New York Medical Week*, of which official organ they were the founders, the title of which had been changed a year ago to *Journal of the Medical Society of the County of New York*.

When called on for some concluding remarks, he described how the important county society "Branch" system and its official periodical, now spread over the country from coast to coast, had their origin in Philadelphia early in this century, where he was at that time practicing his profession. Joining with those who were interested in the annually recurring effort to win better state medical laws, he was brought into touch with fellow practitioners in the more distant parts of the city. He was impressed by the occasional remark—explaining the seeming indifference of some of these men to join—that they had so little to show for membership in the county society as then conducted; that no opportunity existed to greet fellow members regularly socially or to listen with them to a scientific meeting program.

This was largely because, in the residential part of a large city, the average family physician must hold late evening office hours, his clientele being at business during the daytime. Again, as the hall of the county society was located in midtown, distance alone prevented attendance by doctors living in outlying areas. It was not surprising, then, that their enforced isolation and unintentional neglect by the society should have caused indifference, if not, at times, actual resentment.

The complaint was amply warranted and the situation was one of bringing the mountain to Mahomet—of organizing local meeting centers as affiliates of the county medical society. This seemed to be the logical answer. It was in meeting this demand that the "Branch" system had its birth, and its popularity was assured as the plan was taken up later by other population centers. The aim was to afford regular meetings, at least monthly, for physicians in the branch district, at which formal scientific programs could be presented.

An ardent coworker at the time was the late Dr. Albert M. Eaton, afterward a president of the county medical society. Praise is due his memory for the many hours he contributed and long journeys he helped Dr. Hirsh to make evenings, after busy days with patients, in founding these branches. Five years' spare hours were devoted to this campaign. Two of the branches were in active operation within the first year of the new century and ultimately seven such centers were found necessary to serve the city's profession.

Some means for more regular communication with the society's members—affording better publicity for the movement—seemed wanting at the outset. It was then that it occurred to the speaker that more rapid progress would be possible in multiplying these branches if the Philadelphia County Medical Society, jointly with other local medical organizations, were to issue a printed bulletin each Saturday containing their prospective meeting programs along with brief news notes on local medical occurrences. It was this proposal that initiated the county medical society periodical, now found in so many centers from coast to coast. Active agitation for its adoption was carried on in medical societies at the outset, although the suggestion did not at first find favor. Mention of the plan did, however, appear in medical

journals about 1901, both about the founding of the branch system and that of the proposed weekly organ.

Chicago, in 1902, and Philadelphia, in 1905, were the first to issue such a publication.

Dr. Hirsh cited a few facts that supplemented the account that had been given by Colonel Kopetzky of the origin of *The New York Medical Week*. An old Philadelphia acquaintance, the late Dr. Richard Pearce, of the medical faculty of the University of Pennsylvania and later a trustee of the Rockefeller Foundation, had learned in 1917 of Dr. Hirsh's intended resignation as editor of the Philadelphia *Roster*, prior to his moving to New York. He suggested the starting of a similar weekly in the metropolis and advised consulting Drs. L. Emmet Holt and J. Bently Squire concerning this. These leaders, when interviewed, told him that they favored the idea but, with the country involved in World War I, they thought it would be best to defer its initiation until the return of peace.

Ending his army service in 1920, Dr. Hirsh sometime later called on Colonel Kopetzky and offered suggestions for the proposed publication, details being finally worked out. Under typical energetic leadership by the latter, medical New York at length had its weekly paper, its circulation in time reaching 7,200, with a country-wide distribution and its contents frequently quoted. It was a smoothly running editorial group who functioned in perfect harmony, week in and week out, for twenty years—Kopetzky guiding the paper's policy and outlining his constructive editorials; Miss Kaplan checking source material to assure accuracy of contents and, in her terse English, writing the editorial page as indicated; the speaker, as news and managing editor, among other duties, gradually influencing some fifty medical organizations to insert their news and meeting programs in this union medium.

Dr. Hirsh, in conclusion, briefly referred to the many favorable results that followed founding of such papers, their very multiplication being the best proof of their usefulness to the profession and the public in general.

The Board of Health has added keratoconjunctivitis and virus pneumonia, more properly termed "primary atypical pneumonia," to the list of communicable diseases required to be reported to the Department of Health.

In New York City, reports coming to the Health Department from practicing physicians indicate that primary atypical pneumonia is being encountered rather extensively in this area. Reporting of the disease should give the Department a closer check on the extent of the pneumonia problem in this city.

"The Board's action," said Dr. Ernest L. Stebbins, commissioner of health, "should not be taken as indicating that pneumonia is on the increase. As a matter of fact, our recent annual summary report reviewing health conditions in this city in the year just closed showed that extremely gratifying progress continued during 1942 in the fight against pneumonia. Only ten years ago, 7,827 deaths due to pneumonia were registered in the City, a rate of 111 per 100,000 of population. During 1942, there were only 2,959 deaths from pneumonia, a rate of 39.1 per 100,000. This excellent showing must be credited to the widespread use of specific therapeutic serums and the introduction of the sulfonamide drugs in the treatment of this disease.

"Virus pneumonia, which now becomes reportable along with the more familiar and serious communicable diseases such as diphtheria, smallpox, syphilis, tuberculosis, and typhoid fever, is a clinically mild form with a very low death rate. However, the Board of Health felt that in view of the general prog-

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Queens County

A stated meeting of the county society was held on January 26. Dr. Virgil H. Moon, professor of

pathology at Jefferson Medical College, spoke on "The Prevention and Practical Management of Shock."

A discussion of gasoline rationing for Queens County was given by Mr. James Lundy, OPA chairman for Queens.

. . .

The Friday afternoon talk on February 19 will be "Treatment of Varicose Veins," by Dr. Gerald H. Pratt, associate surgeon and chief of vascular surgery, New York Post-Graduate Hospital Out-patient Department.

Richmond County

Dr. H. Lynn Halbert, of Grymes Hill, conducted his first meeting as president of the Richmond County Medical Society on February 10 in the Richmond Health Center, St. George.

The other physicians who will serve on Dr. Halbert's staff of directors are Dr. D. V. Catalano, vice-president; Dr. Herman Friedel, secretary; Dr. C. J. Becker, treasurer, Dr. Milton S. Lloyd and Dr. S. C. Pettit, delegates to the convention of the New York State Medical Society; Dr. O. M. Race and Dr. E. C. McCulloch, alternates, Dr. Andrew J. McGowan, Dr. Nathanael Fedde, and Dr. Friedel, censors; Dr. F. T. Donovan, delegate to the First District Branch; Dr. C. J. DiCrocco, alternate; Dr. Donald E. Law, member-at-large.*

Saratoga County

A meeting of the county society was held on January 29 at the Saratoga Hospital.

This was the first meeting to be presided over by the 1943 president, Dr. Mark D. Duby, of Schuylerville.*

Westchester County

The county society opened its 1943 program of postgraduate education with an address by Dr.

Cornelius P. Rhoads, director of the Memorial Hospital in New York City, on "Nutrition and Cancer," at a regular meeting of the society held at the New York Hospital, Westchester Division, in White Plains on January 19.

Dr. George C. Adie, of New Rochelle, presided at the meeting, and Dr. Rhoads was introduced by Dr. Gilbert Dalldorf of Grasslands Hospital, chairman of the society's scientific committee.

In the business session preceding Dr. Rhoads' talk, the society adopted a resolution reducing the number of its regular meetings for 1943 to five, and, thereafter, for the duration of the war, to four meetings annually.

In order to insure prompt and adequate response to emergency calls for medical service, the society adopted a report of its executive committee that local hospital staffs be urged to study the need for special services in their own communities and to take whatever steps may be indicated locally to assure prompt coverage of emergency medical calls.*

Wyoming County

Dr. Mary T. Greene entertained the members of the Wyoming County Medical Society and the Wyoming County Community Hospital staff at the Castile Sanitarium on January 13. An invitation was also extended to each member's wife. Following a delicious luncheon, a joint meeting of the two societies was held. Moving pictures of the treatment of varicose veins were shown during the meeting.

The custom of holding an annual meeting at the Castile Sanitarium has been carried on for about fifty-six years, having been originated by Dr. Cordelia Greene, an aunt of Dr. Mary Greene. Dr. Mary Greene has graciously carried on this custom throughout her years as head of the sanitarium.*

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Theophilus P. Allen	46	P.&S., N.Y.	January 27	Manhattan
Nahum Binderman	60	Fordham	January 22	Brooklyn
Siegfried Blach	42	Heidelberg	December 11	Brooklyn
William Branower	62	P.&S., N.Y.	January 17	Manhattan
Sigmund F. Braunfield	51	L.I.C. Hosp.	November 22	Manhattan
Howard S. Bulkeley	56	Univ. & Bell.	January 17	Rhinebeck
Samuel S. Dorrance	31	Albany	January 15	Albany
Charles E. Doubleday	78	Syracuse	January 14	Penn Yan
Louis J. Ferrara	55	Univ. & Bell.	January 19	Bronx
Moosha B. Freid	78	N.Y. Univ.	January 21	Bronx
Lindon L. Gillett	77	Wooster, Ohio	November 8	Suffern
Sigmund Gross	43	Boston	December 13	Brooklyn
Joseph A. Hyams	58	P.&S., N.Y.	January 26	Manhattan
Isidor H. Kugel	50	L.I.C. Hosp.	December 23	Brooklyn
Florence M. Loughton	72	W.M.C., N.Y. Inf.	January 15	Manhattan
Charles A. Luce	76	Bellevue	January 21	Amityville
Paul O. Luedeke	74	Buffalo	January 25	Rochester
Charles J. Reynolds	77	Niagara	January 11	Buffalo
Benjamin R. Roman	37	Univ. & Bell.	January 16	Manhattan
Edwin D. Smith	74	P.&S., N.Y.	January 16	Woodmere
William J. Sullivan	61	Buffalo	January 14	Dunkirk
Bernard Weiss	30	N.Y. Univ.	December 30	Poughkeepsie
Thomas A. Young	67	Trinity, Toronto	January 22	Morristown

Hospital News

Homer Folks Speaks at 100th Anniversary of Utica Hospital

PREVENTION is the "white hope" of reducing the volume and cost of mental disorders, Homer Folks, secretary of the State Charities Aid Association and chairman of the Temporary Commission on State Hospital Problems, declared in an address at the observance of the 100th anniversary of the opening of the Utica State Hospital on January 16.

He said that the State, with a \$40,000,000 annual budget for mental hygiene institutions, is making "one of its worst financial errors" in not pushing a preventive program. He declared that many millions a year in construction and maintenance costs could be saved thereby.

Speaking on "The Tyranny of the Past and the Hope of the Future," Mr. Folks advocated a double offensive to diminish insanity and the cost of caring for its victims. He urged centering one attack on more thoroughgoing and effective treatment of the mentally sick in the hospitals, with the extension of shock therapy and parole and family care, and the other on prevention by means of earlier discovery and treatment through clinics or health centers.

He believes that the time has come for the State "to begin to make good, and in a big way," in

attaining a prevention objective set thirty years ago but not yet realized because it "thought itself unable to afford to carry on an effective system of diagnosis and treatment through clinics."

Mr. Folks recommended that the State hospitals be made more fully hospitals in fact as well as in name, and that searching psychiatric examination of patients should select more patients suitable for parole and family care. He declared that while more and more fully trained psychiatrists in the hospitals, new modes of treatment, and a better understanding of environmental factors in causation are important, prevention is a "white hope beside which all three put together are relatively unimportant."

The Temporary Commission on State Hospital Problems, which is headed by Mr. Folks, recently submitted a progress report to Governor Lehman on a two-year study which had resulted in measures that not only halted the rate of increase in the number of patients in residence in the civil State hospitals for the insane, but brought about an actual decrease in the patient population for the first time in fifty years.

Hospital Standards High Despite Curbs

DESPITE depleted staffs, curtailed supplies, increased expenses, and heavy demands for service, hospitals of the United States and Canada are as a whole maintaining high standards, Dr. Irvin Abell, of Louisville, chairman of the board of regents of the American College of Surgeons, said in announcing that the twenty-fifth annual list of hospitals approved by the organization includes 2,989 institutions, an increase of 116 over 1941.

"The 1942 survey disclosed that a few hospitals previously approved are not meeting the minimum standard today," Dr. Abell said. "Consequently, approval was withheld or a provisional rating given."

"These wartime casualties are more than balanced by the earning of approval by some hospitals which have improved since the last survey. Nevertheless, great shifts of population due to new and relocated

war industries, and establishment of large military encampments, have caused excessive demands for hospital service in some communities, and there is increasing danger of lowered standards in the effort to care for more patients than the depleted staffs can properly serve.

"In this emergency most communities are rallying to the support of the hospitals, furnishing volunteer nurses' aids and other voluntary workers, encouraging study and practice of home nursing, discouraging hospitalization for minor illnesses, interesting young people in careers in medicine and nursing, and increasing disease and accident-prevention efforts. By voluntarily granting hospitalization priorities to the more seriously ill, the people will conserve hospital resources as they are conserving other services and many commodities through allocation according to needs."

Conservation in the Hospital

IN AN article entitled "Conservation Depends on Cooperation," in *The Modern Hospital* for January, Elizabeth Bahrenburg, R.N., assistant director of nursing at the University Hospitals, Cleveland, tells what has been accomplished by a campaign to conserve hospital materials. We quote:

Women's and children's clubs throughout the city are supplying us with bags made of newspapers, replacing the kraft paper bags for bedside use.

A bottle and ointment jar salvage campaign is continuing to be of great help to us. All containers are delabeled and scrubbed before being brought to the pharmacy. They serve numerous purposes, as follows:

1. Ointment jars for pharmacy use.
2. Gallon jugs for constant drainage and suction bottles.
3. Mineral oil bottles for urine specimens.
4. Prescription and dropper bottles for pharmacy use.
5. Litmus paper bottles for tablets.

6. Mayonnaise jars for sterile packing, applicators, tongue blades in the supply room.

Rubber economies that are proving satisfactory include:

1. Sewing patches on rubber draw sheets where soft spots appear.
2. Converting old intravenous tubing to tourniquets and also using it for irrigation purposes.
3. Demoting larger bore constant drainage tubing to irrigating cans.
4. Substituting household for surgical gloves for cleaning and for the bedside care of isolated patients with open lesions.
5. Using synthetic rubber rectal tubes. The length of service of these tubes offsets the additional expense many times over.

As a timesaver we have issued to the nursing units the smallest and brightest colored bonbon cups available to substitute for medicine glasses in serving tablet medications. Much less time is spent in washing medicine glasses and the breakage has been greatly reduced.

To conserve ointment tubes, we have discontinued the use

pathology at Jefferson Medical College, spoke on "The Prevention and Practical Management of Shock."

A discussion of gasoline rationing for Queens County was given by Mr. James Lundy, OPA chairman for Queens.

. . .

The Friday afternoon talk on February 19 will be "Treatment of Varicose Veins," by Dr. Gerald H. Pratt, associate surgeon and chief of vascular surgery, New York Post-Graduate Hospital Out-patient Department.

Richmond County

Dr. H. Lynn Halbert, of Grymes Hill, conducted his first meeting as president of the Richmond County Medical Society on February 10 in the Richmond Health Center, St. George.

The other physicians who will serve on Dr. Halbert's staff of directors are Dr. D. V. Catalano, vice-president; Dr. Herman Friedel, secretary; Dr. C. J. Becker, treasurer, Dr. Milton S. Lloyd and Dr. S. C. Pettit, delegates to the convention of the New York State Medical Society; Dr. O. M. Race and Dr. E. C. McCulloch, alternates, Dr. Andrew J. McGowan, Dr. Nathanael Fedde, and Dr. Friedel, censors; Dr. F. T. Donovan, delegate to the First District Branch; Dr. C. J. DiCrocco, alternate; Dr. Donald E. Law, member-at-large.*

Saratoga County

A meeting of the county society was held on January 29 at the Saratoga Hospital.

This was the first meeting to be presided over by the 1943 president, Dr. Mark D. Duby, of Schuylerville.*

Westchester County

The county society opened its 1943 program of postgraduate education with an address by Dr.

Cornelius P. Rhoads, director of the Memorial Hospital in New York City, on "Nutrition and Cancer," at a regular meeting of the society held at the New York Hospital, Westchester Division in White Plains on January 19.

Dr. George C. Adie, of New Rochelle, preside at the meeting, and Dr. Rhoads was introduced by Dr. Gilbert Daldorf of Grasslands Hospital, chairman of the society's scientific committee.

In the business session preceding Dr. Rhoads' talk, the society adopted a resolution reducing the number of its regular meetings for 1943 to five, and thereafter, for the duration of the war, to four meetings annually.

In order to insure prompt and adequate response to emergency calls for medical service, the society adopted a report of its executive committee that local hospital staffs be urged to study the need for special services in their own communities and to take whatever steps may be indicated locally to assure prompt coverage of emergency medical calls.*

Wyoming County

Dr. Mary T. Greene entertained the members of the Wyoming County Medical Society and the Wyoming County Community Hospital staff at the Castile Sanitarium on January 13. An invitation was also extended to each member's wife. Following a delicious luncheon, a joint meeting of the two societies was held. Moving pictures of the treatment of varicose veins were shown during the meeting.

The custom of holding an annual meeting at the Castile Sanitarium has been carried on for about fifty-six years, having been originated by Dr. Cordelia Greene, an aunt of Dr. Mary Greene. Dr. Mary Greene has graciously carried on this custom throughout her years as head of the sanitarium.*

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Theophilus P. Allen	46	P.&S., N.Y.	January 27	Manhattan
Nahum Binderman	60	Fordham	January 22	Brooklyn
Siegfried Blach	42	Heidelberg	December 11	Brooklyn
William Branower	62	P.&S., N.Y.	January 17	Manhattan
Sigmund F. Braunfield	51	L.I.C. Hosp.	November 22	Manhattan
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William J. Sullivan	61	Buffalo	January 14	Dunkirk
Bernard Weiss	30	N.Y. Univ.	December 30	Poughkeepsie
Thomas A. Young	67	Trinity, Toronto	January 22	Morristown

At the Helm

Arthur B. Stiles, of Owego, was elected president of the Tioga County General Hospital at the annual meeting of the board of directors and staff at the Jenkins Inn in January.

Mr. Stiles, postmaster at Owego, has been active in support of the hospital since the campaign to erect an institution to serve all of Tioga County, and he is a past president as well as a member of the board of trustees and of the executive committee.

Other officers for the coming year will be: Nathan Turk, first vice-president; Leonard R. Chubb, second vice-president; Jesse Hart, third vice-president; Luther Hardy, secretary; and Earl C. Cooper, treasurer.

The executive committee, to be headed by Mr. Stiles, will consist of: B. J. Cotton, Arthur S. Buckley, Luther C. Hardy, Edward W. Eaton, Earl C. Cooper, Hart I. Seely, Elwin H. Johnston, William C. Farley, Floyd J. Beers, Clifford B. Dounce, and Harry S. Fish.*

. . .

Cornwall Hospital board of directors at their annual meeting in the hospital on January 21 re-elected Col. Harry M. Scarborough as president. Vermont Hatch remains as vice-president; Harry E. Keever, treasurer; and William B. Cocks, secretary.*

. . .

Mason B. Coger was elected to his twelfth successive term as president of the Corning Hospital board of directors in December. Also re-elected were John LeValley, vice-president, and W. W. Oakley, secretary-treasurer.*

. . .

Frederick P. King, of Sunnyside Lane, was re-elected president of the Tarrytown Hospital Association at the annual meeting held at the hospital on January 18. At the same time John Hunter, of Barney Park, was re-elected treasurer, and Ellery Wright and Wallace Odell, both of Tarrytown, were designated vice-president and secretary, respectively.

The board of directors of the hospital remains the same with the exception of Donald K. Luke, of Fargo Lane. The members re-elected, besides Mr. King, Mr. Wright, Mr. Hunter, and Mr. Odell, were Harold V. Engh, of Irvington, and John D. Rockefeller, III, of Pocantico Hills.

New equipment, it was stated in a report to the board, has been installed in the x-ray department, the laboratory, the emergency room, and the maternity ward, with special mention going to the Duchess de Talleyrand's generous gift of an iron lung.*

. . .

At the annual meeting of the Benedict Memorial Hospital, Ballston, held in January, the following officers of the institution were re-elected: president, Wright Scidmore, Jr.; first vice-president, William Rooney; second vice-president, Mrs. W. A. Andrews; secretary, Mrs. H. B. Dorman; treasurer, Samuel S. Newton; directors for four years, Mrs. John Knickerbacker, Edward J. Morley, and Samuel S. Newton.

During the year Ralph B. Dunton and Harold Arff were elected directors to fill vacancies caused by the deaths of Stephen B. Merchant and George Ashton.*

. . .

Dr. Alfred K. Bates was elected president of the staff of Auburn City Hospital at the annual meeting of the staff in January. Other officers elected were: vice-president, Dr. G. Perry Ross; secretary, Dr. J. Burnett Atwater.

Those present at the program that followed the meeting, including wives of the staff members, were welcomed by Jerome F. Peck, Jr., acting superintendent of the hospital. Dr. Walter B. Wilson, retiring president, introduced the Student Nurses' Glee Club, which amply demonstrated the ability of the members as musicians. The group was given an enthusiastic reception.

Dr. H. I. Davenport presented a plaque bearing the names of members of the medical staff now in the country's service.*

Newsy Notes

New York City's Welfare Hospital for Chronic Diseases will now be known as the Goldwater Memorial Hospital.

. . .

A 9-year-old boy who had his 110th blood transfusion at Mount Sinai Hospital in New York City on January 4, became the 500,000th case of the institution since it was founded by New York's Jewish community in 1852. The boy, victim of a rare malady known as aregenerative anemia, was brought to the hospital first in 1935.

Since then he has visited the institution usually once a month, accompanied by his mother. His name was withheld, but it was learned that he was president of his class in a Brooklyn public school, stood first in scholarship, and was active in sports. He was taking the transfusions as a "routine," his mother explained.

Hospital officials said the records showed that Case No. 1 was a 41-year-old immigrant—operated on for a fistula.

The hospital's first home was a four-story building in West Twenty-eighth Street, where 225 patients were admitted in the first year. Last year it treated 17,000 patients, in addition to 27,000 in clinics. The hospital now occupies eighteen buildings on the three blocks in Fifth Avenue between Ninety-eighth and 101st Streets.*

. . .

Gratitude for the service the Richmond Memorial Hospital, Dreyfus Foundation, emergency medical unit has rendered is expressed by Dr. Edward M. Bernecker, Department of Hospitals commissioner in a letter to John H. Olsen, superintendent of the Staten Island institution.

of shaving cream for surgical preparations, using soap solution instead. Cold cream is issued only in jars to the nursing units.

The operating room discovered that the metal ends of adhesive packages serve admirably for needle holders in the sterilizers if holes are punched in them.

The heating elements of old inhalators make satisfactory hot plates.

Chemical heating pads to which a tablespoon of water is added may have to replace hot-water bottles.

Improvements

In Beth Moses Hospital, Brooklyn, the patient receiving treatment for varicose veins stands up and takes it in comparative comfort, thanks to the inventive mind of Fanny Schlein, director of the outpatient department. Mrs. Schlein noted every now and then that some patient who was being treated while standing on an examining table would suffer from dizziness and general insecurity. So she conceived the idea of a platform that she describes briefly as follows: "A discarded metal bed-raiser and some lumber, found in the carpenter's shop, with four casters which are fastened to the tubular legs of the stand are all there is to it. The result is that the physician and the patient both have greater comfort since the doctor is seated while administering treatment and the patient feels secure in gripping the frame.

"The platform also has the advantage of being small in size and easily stored in a limited space. Taking into consideration our national watchword of 'priority,' we have found this device extremely helpful."—*The Modern Hospital*

A hospital service to handle emergencies which might arise in the Schenectady-Albany area is being set up under the emergency medical service of the civilian protection plan.

The plan will be the first of its kind in the country and will be known as Albany Affiliate Base Hospital 1. The unit will be commanded by Dr. J. Lewi Donhauser, of Albany, who will be commissioned a lieutenant colonel in the public health service reserves. Several Schenectady physicians are expected to be among the personnel, which will include four physicians, five surgeons, x-ray and laboratory technicians, a pathologist, and a dentist, in addition to nurses.

The hospital is also to evacuate patients from Ellis hospital and two Albany hospitals in case of necessity. Members of the unit will serve on army pay when called for emergency duties.*

Cancer clinics in Westchester County that are on the approved list of the American College of Surgeons are conducted by the following hospitals: Mount Vernon, New Rochelle, United (Port Chester), Grasslands (Valhalla), St. Agnes (White Plains), White Plains, and St. John's Riverside (Yonkers).*

The granting to authorities of Brooks Memorial Hospital in Dunkirk of a priority for building materials will make possible advertisement for bids for the construction of the proposed easterly wing of the new structure which is now in use.

We have also found that razor blades can be satisfactorily sharpened by rubbing both sides of them against the inside of a smooth glass tumbler. We have reduced our consumption from 500 to 200 every two weeks.

The propaganda to conserve specified supplies for the war effort has aroused an interest toward protecting all our resources. The storeroom orders from all divisions have markedly and spontaneously decreased, including the amount of breakage. Apologies and explanations frequently accompany requisitions.

The Federal Works Administration originally approved the grant on January 9, 1942, and President Roosevelt gave his approval on March 28, 1942. However, the project could not be started because priorities for critical materials could not be obtained at that time.*

Construction work on Massena's new hospital started in January. The single-story hospital building is a Federal Works Agency project.

The building will be a wooden structure with room for 50 beds. Space is being allowed for additions at a later date when the needs of the community require it. Such additions would make the hospital into one of 100-bed capacity.*

Rochester's oldest hospital, 86-year-old St. Mary's, is now also its newest, as the \$1,300,000 structure replacing the historic institution at Bull's Head stands virtually completed—less than a year from the date its corner stone was laid.

The building will be put into actual operation shortly, it is announced by Dr. Leo F. Simpson, president of the staff and chief surgeon.

A far cry from the small emergency hospital built by the Sisters of Charity in 1857 as the forerunner of the ultra-modern temple of medicine, the new hospital has up-to-the-minute surgical and other equipment, operating rooms, auditorium, staff lounge, dietetic kitchens, private dining rooms, medical and general library, and other modern facilities. It will accommodate 400 patients.

Eventually the old hospital, whose solid gray-stone facade is in striking contrast to the new brick one, will be abandoned. For a while, the ground floor will be used as quarters for sisters and interns.

Long dreamed of, the new building represented a triumph over many obstacles. Plans were prepared about ten years ago, but because of the business depression, no action was taken. After it finally was decided to proceed with the construction, the nation drew closer to war, and Washington already was setting up rigid controls on any project not deemed essential.

Actual construction began June 28, 1941. The project took on civic proportions far beyond mere denominational lines in a campaign to raise \$275,000 for the building fund. It was conducted from January 23 to February 2, 1942. Protestant, Catholic, and Jewish leaders united in soliciting funds, and the drive went over the top by nearly \$40,000.

Sister Martina is superintendent of St. Mary's Hospital.*

* Asterisk indicates that item is from local newspaper.

Honor Roll

Medical Society of the State of New York

Member Physicians in the Armed Forces

Supplementary List

The following list is the third supplement to the Honor Roll published in the December 15 issue. Other supplements appeared in the January 1 and January 15 issues.—*Editor.*

A

Alley, J. L.
225 Lincoln Pl., Brooklyn, N.Y.
Althouse, D. D.
54 E. Genesee St., Auburn, N.Y.
Andriola, J. C.
231 Sherman Ave., N.Y.C.
Auker, P. L.
305 Clinton St., Binghamton, N.Y.

B

Bannon, J. A.
103 Ridge St., Glens Falls, N.Y.
Baselice, P. P.
119 W. 11 St., N.Y.C.
Berg, H. E.
2250 Clarendon Rd., Brooklyn, N.Y.
Berger, Murray (Capt)
Baxter Gen'l Hosp., Spokane Wash.
Bernstein, C.
641 E. 17 St., Brooklyn, N.Y.
Bernstein, L.
1300 Avenue T, Brooklyn, N.Y.
Bianchi, D. A. (Lt)
Station Hosp., Morrison Field, W. Palm Beach, Fla.
Billo, O. E.
Bronxville, N.Y.
Boffard, M. R.
1184—71 St., Brooklyn, N.Y.
Bogdan, E. A.
45 Church St., Amsterdam, N.Y.
Boyd, L. H.
U.S. Naval Trg. Sta., Sampson, N.Y.

Bradley, H. A.
Chilton Sprgs., N.Y.
Brancato, S. F. (Lt)
Lawson Gen'l Hosp., Atlanta, Ga.
Breguet, R. (Capt)
Lawson Gen'l Hosp., Atlanta, Ga.
Brink, R. H.
Savings Bank Bldg., Cortland, N.Y.
Brittain, K.
277 Alexander St., Rochester, N.Y.
Buckley, P. V. (Capt)
3405 N. Broadway, Oklahoma City, Okla.
Budetti, J. A.
10 Park Ave., N.Y.C.
Bull, H. T.
Geneveo, N.Y.

C

Candel, S.
189 Ocean Ave., Brooklyn, N.Y.
Carlinio, L. L.
445 Portage Rd., Niagara Falls, N.Y.
Caronna, J. P.
323 E. 14 St., N.Y.C.
Carstarphen, W. T.
Medical Admin., Rohwer War Relocation Project, McGhee, Ark.
Charlton, G. P.
1 E. 105 St., N.Y.C.
Ciancimino, F. E.
167 S. Broadway, Nyack, N.Y.
Crosby, J. P.
304 Bewley Bldg., Lockport, N.Y.

D

Danzig, S. D. (Lt.)
Station Hosp., Camp Van Dorn, Miss.

DeMarco, M. M.
3389 Sedgwick Ave., Bronx, N.Y.
Dennison, A. D., Jr.
74 Oakview Ave., Maplewood, N.J.
Deutsch, I.
Pearl River, N.Y.
DeVita, J. R.
213 Adelphi St., Brooklyn, N.Y.
Dixon, G. G.
157 Midwood St., Brooklyn, N.Y.
Dolgn J.
100 Stuyvesant Pl., St. George, N.Y.
Donofrio, A. F.
140 E. 54 St., N.Y.C.
Dressler, M. (Capt)
Veterans Admin. Facility, Portland, Ore.

E

Edmunds, J. N.
42-04 Kissena Blvd., Flushing, N.Y.
Eisendorfer, A.
1133 Park Ave., N.Y.C.
Elia, J. C.
1522 Pierce Ave., Niagara Falls, N.Y.
Enselberg, C. D.
60 Gramercy Park, N.Y.C.
Errico, F. J.
Suffern, N.Y.

F

Fankhauser, A.
156 Midwood St., Brooklyn, N.Y.
Farrow, F. C.
122 Linwood Ave., Buffalo, N.Y.
Fearon, H. D.
29 Montgomery Pl., Brooklyn, N.Y.
Feinstein, M. A.
145 E. 61 St., N.Y.C.
Fine, J. I. (Capt)
111 W. 183 St., Bronx, N.Y.
Finkelstein, N. E.
194 Grafton St., Brooklyn, N.Y.
Fisher, M. M.
45 Linden Blvd., Brooklyn, N.Y.
Fitz Gerald, H. B.
136 Walnut St., Lockport, N.Y.
Frankel, J. M.
108 Rugby Rd., Brooklyn, N.Y.
Freeland, E. M.
51 Madison Ave., N.Y.C.
French, W. G.
632—2 St., Brooklyn, N.Y.
Friedlander, J. H.
40 Linden Blvd., Brooklyn, N.Y.
Friern, A. F. X.
2424 Kings Highway, Brooklyn, N.Y.
Furst, E.
2160 Bolton Ave., Bronx, N.Y.
Futterman, S.
49 E. 96 St., N.Y.C.

G

Generales C. D. J. (Lt)
A. A. F. Advanced Flying School, Stuttgart, Ark.
Genovese, R. F.
622 Court St., Brooklyn, N.Y.
George, A. I.
Oakfield, N.Y.
Getman, E. E. (Capt)
Percy Jones Gen'l Hosp., Battle Creek, Mich.

Gewirtz, A. J.
20 Plaza St., Brooklyn, N.Y.
Ghiselin, A. D., Jr.
1114 Madison Ave., N.Y.C.
Ginsberg, V.
286 Eastern Pkwy., Brooklyn, N.Y.
Goldbaum, A.
100 Bennett Ave., N.Y.C.
Goldberg, B.
650 Main St., New Rochelle, N.Y.
Goldstein, J.
133 W. 72 St., N.Y.C.
Goller, J. J.
25 Central Ave., St. George, S.I., N.Y.
Grant, S. F.
601 Brightwater Court, Brooklyn, N.Y.
Greenberg, J. S.
4621—15 Ave., Brooklyn, N.Y.
Greenstein, N. M. (Lt)
Naval Air Station, Quonset Point, R.I.
Griffin, H. P.
143 Court St., Binghamton, N.Y.
Guillemont, G.
545—4 St., Niagara Falls, N.Y.

H

Hammond, J. P.
80 Hanson Pl., Brooklyn, N.Y.
Hand, M. H.
1615 Avenue I, Brooklyn, N.Y.
Hardy, A. H.
146 Prospect Ave., Mt. Vernon, N.Y.
Harvey, H. D.
168 E. 95 St., N.Y.C.
Hawkes, L. P.
Pearl River, N.Y.
Heist, C. A. (Lt)
U.S. Navy 222, Fleet P.O., N.Y.C.
Held, A. E.
135 Eastern Pkwy., Brooklyn, N.Y.
Hetherington, A. E. (Capt)
O'Reilly Gen'l Hosp., Springfield, Mo.
Heywood, J. S. (Lt)
Station Hosp., Camp Myles Standish, Taunton, Mass.
Hoffeld, G. D.
Naval Air Station, Ottumwa, Iowa.
Hourigan, J. J.
3553—89 St., Jackson Heights, N.Y.
Howd, H. P.
612 E. Front St., Plainfield, N.J.
Hyman, A.
2000 McGraw Ave., Bronx, N.Y.

I

Ingrassia, P. S.
Nanuet, N.Y.

J

Jaeger, G. W.
705 Chilton Ave., Niagara Falls, N.Y.
Jagoda, L. S.
215 E. 53 St., N.Y.C.
Jalcski, T. C.
421 Huguenot St., New Rochelle, N.Y.
Jarrett, W. A.
1118 Cleveland Ave., Niagara Falls, N.Y.

In the letter, Dr. Bernecker said: "As we stand at the threshold of a new year, I cannot let the old one go on without letting you know how deeply grateful I am to you and the members of the hospital emergency medical unit for the whole-hearted support and earnest cooperation which has always been so freely and willingly extended to me and to the members of my staff during the past year.

"It would be most difficult to conceive how precarious our situation might have been were it not for the able assistance which we had consistently received from you, whenever the occasion for it arose.

"The great task which still lies before us is by no means finished, but the knowledge that you are there to share the burden with us fortifies us to carry on with renewed enthusiasm and courage."*

Memorial Hospital in Ithaca has announced that "owing to the epidemic of pneumonia and pneumonitis that exists in the community," visiting at the hospital will be restricted "until the emergency is over."

"Visitors coming into the hospital with coughs and colds are a menace to patients, and patients who have chest infections are a danger to visitors," the announcement said.

"The medical staff of the hospital feels it is most essential that only the immediate members of families be permitted to visit the patients during their stay in the hospital, thus offering equal protection to both patients and visitors."*

For the benefit of the United Hospitals Fund, the Juilliard School of Music presented a concert on February 5 in Carnegie Hall. Artists participating in the program, besides the orchestra of the Juilliard Graduate School, included Josephine Antoine, soprano; Muriel Kerr, pianist; Carroll Glenn, violinist; Felix Salmond, cellist; and Albert Stossel, conductor. The entire proceeds went to the United Hospitals Fund.

The end of 1942 marked the close of its fiftieth year for the Little Falls Hospital. This institution is unique in that its board of directors has always been composed entirely of women.

At the close of its seven months' existence, the Blood Derivatives Laboratory at Grasslands Hospital had collected a total of 1,243 units of blood from 1,449 donors.

Soon after its establishment, through a grant from the Martha M. Hall Foundation, the project was officially sponsored by the Westchester County Medical Society and the County War Council, and a goal of 1,000 units was decided upon.

A course for training nurses' aids in Monroe County is being given at the Monroe County Hospital.

Two of Buffalo's oldest hospitals are departing from the specialized trend they have followed for more than eighty years, while a third, known throughout the medical world for its research leadership, is changing ownership.

Providence Retreat, 82-year-old institution for the treatment of mental and nervous disorders, will be used exclusively for maternity cases in the future.

St. Mary's Infant Asylum and Maternity Hospital, will be converted into a hospital for infants and children only.

Central Park Hospital is being taken over by the Sisters of St. Francis but will be operated along the same lines of general hospitalization it has followed since it was opened in 1929.*

Fellowships for research at Mount Sinai Hospital, New York City, have been awarded two Latin American physicians, Dr. Enrique Washington Lithgow, of the Dominican Republic, and Dr. Oscar Martinez Gomez, of Mexico. The fellowships, covering a year of research at the New York hospital, are supported by the Dazian Foundation for Medical Research for the purpose of strengthening good will between the United States and Latin American countries.

At the Christmas party of the Rockville Centre League for Mercy Hospital, the league's Christmas check was presented to the hospital.

Executives and outstanding personalities in journalism and literature participated in the celebration of the twenty-first anniversary of Beekman Hospital in New York City, which was held at the Bankers Club on January 16.

The meeting also marked the beginning of a campaign for \$125,000 to meet the deficit in operating this institution for the benefit of 1,000,000 workers and thousands of residents in the financial district of lower Manhattan.

Howard S. Cullman, president of the hospital, spoke of the progress of the institution since its establishment in meeting the increasing needs of that section of the city.

"The health protection, the necessary facilities for efficient and prompt treatment of the injured and ill in this crowded port and financial district are of primary importance to the nation and to the war effort," he said.

Mr. Cullman also read a telegram from former Governor Alfred E. Smith, a member of the board of directors, who was ill. Mr. Smith wrote that with the exception of the years spent in Albany this was the first time he had failed to attend the annual meeting.

Paul Schubert, radio commentator, Eric T. Winberg, correspondent in Sweden, and William L. White, author, spoke in support of the hospital's program.*

AWARD FOR RHINO-LARYNGOLOGICAL RESEARCH

Money is now available from the Casselberry Fund of the American Laryngological Association for a prize award for original research in laryngology or

rhinology. Competing theses must be in the hands of Dr. Arthur W. Proetz, secretary, 1010 Beaumont Medical Building, St. Louis, before March 1, 1943.

Medical Legislation

The following bulletin (No. 2) was issued on January 26 by the Legislative Bureau of the Medical Society of the State of New York.

State Legislation

Bills are not coming in as rapidly this year as in some previous years but we are getting our share and, without doubt, before the close of the session we shall have at least the usual amount of legislation to consider. We hope that the committees will report promptly upon the bills as they are being sent out so as to avoid a clog or bottleneck later on. There is some indication that the two houses may dispose of legislation a little more rapidly this year. We shall appreciate, therefore, a prompt report of your comments upon the bills.

Among the bills that have been introduced which we shall report in an informational way are the following:

Both houses have been asked to extend to July 1, 1944, the Health Commissioner's authority to embargo milk supplies that he believes to be dangerous, or to transfer milk from one plant to another to prevent sabotage or enemy action.

Several bills have been introduced proposing extension of the coverage of the Workmen's Compensation Law. They would include farm laborers, domestic workers, workers in restaurants, bars, grills, lunch rooms, and luncheonettes, as well as employees of municipal corporations, nonprofit associations and corporations—educational, religious, charitable institutions; chauffeurs in New York City, and employers with fewer than four employees.

New Bills Introduced

Senate Int. 206—W. J. Mahoney; Assembly Int. 279—Kreinheder, provides that license to practice physiotherapy shall not permit holder to administer drugs and [instead of or] practice medicine except that the treatment of *quarantinable diseases* [instead of *diseases*] must be under supervision of physician. Referred to the Education Committees.

Comment: Those licensed to practice physiotherapy under the law have not been trained as physicians. They have had no training in the diagnosis of diseases, hence would not be in a position to know when they should call a physician to assist them because of the presence of a quarantinable disease. Unless by training they would be able to diagnose the presence of a communicable disease, it really would be necessary for them to have the assistance of a physician's opinion in every case they take, and that is exactly what the law provides at present. If the supervision of the physician is removed, it is also conceivable that they could do a great deal of harm by treating cases of unsuspected cancer or diabetes or heart disease, or a number of other conditions that only a physician can discover in the early stages, which is a most important period in the progress of a disease. This bill is definitely not in the interest of the public welfare and should not be enacted.

Senate Int. 278—W. J. Mahoney; Assembly Int. 335—Mailler, authorizes Governor, on recommendation of State Health Commissioner, to designate emergency health and sanitary areas when inadequacies of medical facilities or personnel caused by national emergency exist in any area in State;

State Health Commissioner to cooperate with local health and welfare agencies and employ necessary medical and health personnel. Referred to National Defense Committee in the Senate and Health Committee in the Assembly.

Comment: Certain rural areas of the State are suffering for lack of adequate medical care because of the physicians' going into service. There are very few such areas at present, but as the armed services increase in number more and more physicians will be required and there may come a time when it will be necessary to help certain communities secure physicians, as is now the case in some other states. The rapid growth of population in the vicinity of permanent camps and war industries presents a similar problem. Under the Procurement and Assignment Committee, which is now a part of the War Manpower Commission, physicians may be allocated to such areas under the Federal Government. This bill is an attempt on the part of New York State to assist the government by making provisions of its own. The precautions required seem an adequate safeguard to the development of state medicine. In the first place, the Governor must declare that an emergency exists in that area and, with the assistance of the Commissioner of Health, he can then locate physicians as they may be needed. The arrangement is just for one year; the law will automatically expire at the end of that time and if a longer period is required it must be reintroduced.

Senate Int. 301—Young, provides that a town board in any town having a town physician and containing two hamlets separated by more than twenty miles by nearest traveled route, may establish office of assistant town physician. Referred to the Internal Affairs Committee.

Comment: Under the town law a town has authority now to establish the office of town physician and employ a practicing physician on salary if there is not a practicing physician in that town. This amendment would give the town authority to employ, in addition, an assistant physician where two or more adjacent towns are without a physician.

Senate Int. 311—Hampton; Assembly Int. 362—Emma, provides that no manufacturer, bottler, packer, or wholesaler of drugs shall sell poisonous, deleterious, or habit-forming drugs or medicines to any person, firm, or corporation not registered by State Pharmacy Board, except to the State, any political subdivision, hospital or dispensary or physician, dentist, or veterinarian. Referred to the Education Committees.

Comment: This bill has been considered in previous years. It is sponsored by the New York State Pharmaceutical Association and aims to prevent the sale of habit-forming drugs by stores other than licensed drug stores, by prohibiting the manufacturer or wholesaler from selling the drugs to such stores.

Senate Int. 328—Bewley; Assembly Int. 377—Whitney, provides for reasonable personal income

Jenkins, D. M. (Capt.)
473 Bomb. Squad., 334 Bomb. Gp.,
Greenville Army Air Base, Green-
ville, S. C.
Jenks, R. S.
73 Main St., Batavia, N. Y.
Jervis, G. A.
Thiels, N. Y.
Johnson, P. E. (Lt.)
Naval Base Hosp., Sampson, N. Y.

K

Kaplan, A. A.
5107—14 Ave., Brooklyn, N. Y.
Kaplan, L. (Lt.)
529 Rogers Ave., Brooklyn, N. Y.
Kilgour, D. G.
30 E. 40 St., N. Y. C.
Kinzly, J. C.
North Tonawanda, N. Y.
Knight, G. G.
Piermont, N. Y.
Komarnisky, D.
Johnson City, N. Y.

L

Lapovsky, A. J. (Capt.)
Station Hosp., Ft. McClellan, Ala.
Lavine, A. S.
713 E. Genesee St., Syracuse, N. Y.
Leland, S. J.
67 Hudson St., N. Y. C.
Leone, V. D.
356 Portage Rd., Niagara Falls,
N. Y.
Lepore, M. J.
200 Haven Ave., N. Y. C.
Lerman, J. (Capt.)
601 Stone Ave., Brooklyn, N. Y.
Levitt, H.
2922 Barnes Ave., Bronx, N. Y.
Levitt, J. M. (Capt.)
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397 Laurel St., Chillicothe, Ohio
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55 Linden Ave., Middletown, N. Y.
Lipsky, C.
434 Bainbridge St., Brooklyn, N. Y.
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Monticello, N. Y.
Lipson, M.
87 Infantry Div., Camp McCain,
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Littman, J. K.
2021 Grand Concourse, Bronx, N. Y.
Logan, V. W.
115 E. 61 St., N. Y. C.

M

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1251 Dean St., Brooklyn, N. Y.
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160 Cabrini Blvd., N. Y. C.
Mardon, P.
Massena, N. Y.
Markovitz, J. T.
324 Wheatfield St., North Tona-
wanda, N. Y.
Marks, H. K.
18 Poplar Pl., New Rochelle, N. Y.
Mattuucci, S. A.
330 E. 119 St., N. Y. C.
McCann, W. J.
44 Seaman Ave., N. Y. C.
McCann, W. S.
Strong Memorial Hosp., Rochester,
N. Y.
McMartin, D. M.
9 S. William St., Johnstown, N. Y.
Mele, J. M.
619 Jay St., Rochester, N. Y.
Meredith, W. C.
421 Huguenot St., New Rochelle,
N. Y.
Merin, J. H.
Bolton Landing, N. Y.
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Hall, Birmingham, Ala.
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B. O. Q. 4, Davisville, R. I.
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Moldover, A.
490 Pennsylvania Ave., Brooklyn,
N. Y.
Montesano, P.
411 Bleecker St., Utica, N. Y.
Morse, C. R.
Tupper Lake, N. Y.
Moses, M. J.
Spring Valley, N. Y.
Mouber, I. I.
86 Trinity Pl., N. Y. C.
Murphy, A. E.
45 Daniel Low Ter., St. George,
S. I., N. Y.

N

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Puerto Rico
Nisnewitz, S.
60 Plaza St., Brooklyn, N. Y.
O'Brien, J. J.
210 Robinson St., Binghamton,
N. Y.
Ogilvie, J. B.
130 E. 87 St., N. Y. C.
Oppenheim, E.
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P

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Percival, R. T.
142 Joralemon St., Brooklyn, N. Y.
Pirome, F. J.
108 N. Columbus Ave., Mt. Vernon,
N. Y.
Plachta, A. (Lt.)
9 Med. Laboratory, Ft. Sam Hous-
ton, Tex.
Post, J.
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Potter, H. F.
195 Fenimore St., Brooklyn, N. Y.
Potter, H. W.
70 E. 77 St., N. Y. C.
Potter, S. B.
336 E. 61 St., N. Y. C.
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R

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36 Armd. Infantry Regt., 3 Armd.
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Va.
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S

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Scala, E. A.
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118—8th Ave., Brooklyn, N. Y.
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Turney, W. B.
Avon, N. Y.

V

Van Ness, A. W.
677 W. Onondaga St., Syracuse,
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Varney, H. I.
121 Westchester Ave., White Plains,
N. Y.

W

Walder, A. J.
388 Vermont St., Brooklyn, N. Y.
Walker, W. J.
840 Morris Park Ave., Bronx, N. Y.
Ward, F. C.
Odessa, N. Y.
Warren, R. F.
200 Hicks St., Brooklyn, N. Y.
Weinberg, A. A.
485 Ocean Ave., Brooklyn, N. Y.
Weintraub, S.
16 Park Ave., N. Y. C.
Welch, L. G.
448—3 St., Niagara Falls, N. Y.
Werner, A. S. (Lt.)
Naval Air Sta. Disp., Norfolk, Va.
Weymuller, L. E.
122 E. 76 St., N. Y. C.



AN OLD TIMER CARRIES ON!

The esteemed, venerable practitioner is still carrying on! In many instances, our old friends are coming out of retirement to fill the gaps resulting from enlistment of their younger colleagues in the armed forces.

Another old friend and veteran in the armamentarium of the practitioner, Arsenoferratoze, is also carrying on! Modern therapeutics recognizes the value of Arsenoferratoze in the treatment of the anemias found in pregnancy, parturition, lactation, x-irradiation, and chronic hemorrhagic and iron deficiency diseases.



In addition, today's needs have logically extended the indications for Arsenoferratoze... To counterbalance

the blood changes in sulfa-drug therapy... To act as a replacement factor for blood donors... To safeguard against iron deficiency in the restricted diets of defense workers.

The old practitioner specifies Arsenoferratoze because it has "proved its metal" in many years of service. He knows that it is pleasant to take, easily and readily assimilated, and decidedly non-irritating. Arsenoferratoze serves a dual purpose—acting as an efficient hematinic and as a suitable alterative. Its palatability makes it especially suitable for children.

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HEMATINIC AND ALTERATIVE OF CHOICE

Dosage: One to three teaspoonfuls, 2 or 3 times daily, with meals. *Supplied:* plain, or with copper, in bottles of 8 fluid ounces; in tablets, bottles of 75.

Rare Chemicals, Inc. FLEMINGTON, N. J.

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tax deductions for unusual medical expenses, including cost of childbirth, for life insurance premiums, and for exempting dependents over eighteen years of age in full-time attendance in an accredited college or school. Referred to the Taxation Committees.

Assembly Int. 135—Austin, provides for removal and destruction of ragweed and other weeds and plants detrimental to public health on determination of municipal board; notice and opportunity are given owner before local board enters property. Referred to the Health Committee.

Assembly Int. 333—C. D. Williams, authorizes

State Education Board until January 1, 1944, to license without examination as professional nurse any person who in the preceding ten years lived in and practiced nursing in the State and was unable to meet all preliminary or professional requirements. Referred to the Education Committee.

Assembly Int. 334—C. D. Williams, provides that during and until one year after discharge from active service in the U. S. armed forces as member of medical, hospital, or similar unit, applicant may be licensed by Education Department as registered professional nurse upon furnishing satisfactory evidence. Referred to the Education Committee.

Federal Legislation

Several bills of definite importance to us are pending before Congress:

S. 345, by Mr. Murdock, of Utah, and *H.R. 786*, by Mr. Tolan, of California, would include chiropractors, together with physicians and osteopaths, as qualified to treat cases under the United States Employees' Compensation Act. Congressman Tolan had this bill before the last Congress but could not get it out of Judiciary Committee. The bill is with the Judiciary Committee again and we suggest that you write to your congressman opposing its enactment.

S. 400, by Mr. Thomas, of Utah, and *H.R. 649*, by Mr. Bulwinkle, of North Carolina, provide for the reorganization and functions of the Public Health Service, in that hereafter the Public Health Service in the Federal Security Agency shall consist of the office of the Surgeon General, the National Institute of Health, the Bureau of Medical Services, and the Bureau of State Services. All of the functions of the Public Health Service are

to be divided among these four divisions. The chiefs of the National Institute and of the two Bureaus shall be commissioned medical officers detailed by the Surgeon General from the regular corps.

Another Bill, *S. 450*, by Mr. Pepper of Florida, provides benefits for the injury, disability, death, or enemy detention of civilians and for the prevention and relief of civilian distress arising out of the present war. Medical benefits, including doctor's and nurse's services, drugs and other medicines, prosthetic and other appliances, hospitalization, and other reasonable services for treatment and care, shall be provided.

JOHN L. BAUER
WALTER W. MOTT
LEO F. SIMPSON
Committee on Legislation
JOSEPH S. LAWRENCE
Executive Officer

SUPPLIES TO COAST GUARD

Through the generosity of American pharmaceutical and specialty houses, the Medical and Surgical Relief Committee of America was able to ship supplies valued at \$10,000 during December to the U.S. Coast Guard and to first aid stations, needy hospitals, and other recognized relief agencies in the United States, Alaska, and allied nations.

Among the contributors were: Eli Lilly & Com-

pany, New York City; E. R. Squibb & Sons, New York City; Hynson, Westcott & Dunning, Baltimore, Maryland; Popper & Klein, Inc., New York City; McBride Company, Columbus, Ohio; M. F. Patterson Dental Supply Co., Des Moines, Iowa; Novocol Chemical Mfg. Co., Brooklyn; Tappan Zee Surgical Company, Nyack, New York; Westerfield Pharmacal Co., Dayton, Ohio.



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AN OLD TIMER CARRIES ON!

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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selections for review will be based on merit and interest to our readers.

RECEIVED

The Hemorrhagic Diseases and the Physiology of Hemostasis. By Armand J. Quick, M.D. Octavo of 340 pages. Springfield, Charles C. Thomas, 1942. Cloth, \$5.00.

Synopsis of Traumatic Injuries of the Face and Jaws. By Douglas B. Parker, M.D. Duodecimo of 334 pages, illustrated. St. Louis, C. V. Mosby Co., 1942. Cloth, \$4.50.

A Short History of Cardiology. By James B. Herrick. Octavo of 258 pages, illustrated. Springfield, Charles C. Thomas, 1942. Cloth, \$3.50.

Occupational Tumors and Allied Diseases. By W. C. Hueper, M.D. Quarto of 896 pages. Springfield, Charles C. Thomas, 1942. Cloth, \$8.00.

Fractures. By Paul B. Magnuson, M.D. Fourth edition. Octavo of 511 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1942. Cloth, \$5.50.

Mental Health in College. By Clements C. Fry M.D. Octavo of 365 pages. New York, The Commonwealth Fund, 1942. Cloth, \$2.00.

Ovarian Tumors. By Samuel H. Geist, M.D. Octavo of 527 pages, illustrated. New York, Paul B. Hoeber, Inc., 1942. Cloth, \$10.50.

Extra-Mural Teaching of Preventive Medicine and Public Health. The Medical Bulletin of the University of Cincinnati, Volume IX. By Alfred Korach, M.D. Quarto of 143 pages. Cincinnati, University of Cincinnati, 1942. Board.

Infant and Child in the Culture of Today. By Arnold Gesell, M.D., and Frances L. Ilg, M.D. Quarto of 399 pages, illustrated. New York, Harper & Brothers, 1943. Cloth, \$4.00.

The 1942 Year Book of Industrial and Orthopedic Surgery. Edited by Charles F. Painter, M.D. Duodecimo of 424 pages, illustrated. Chicago, The Year Book Publishers, 1942. Cloth, \$3.00.

REVIEWED

Demonstrations of Physical Signs in Clinical Surgery. By Hamilton Bailey, F.R.C.S. Eighth edition. Octavo of 336 pages, illustrated. Baltimore, Williams & Wilkins Co., 1942. Cloth, \$7.00.

This is an excellent treatise on the art of clinical surgical diagnosis. The book is well written, profusely illustrated with good photographs, and furnishes an excellent review of most of the problems one is apt to encounter.

The material is generally arranged according to the various anatomic sections of the body and is tersely presented. Careful reading will give the surgeon, the general practitioner, or the medical student a good review of the entire subject and may bring back to memory many important facts once learned but long since forgotten.

In this era of complicated laboratory procedures, involving even simple diagnostic problems, it is very refreshing to review once again what one can do by judicious employment of eyes, hands, ears, and gray-matter.

This book deserves a place in the library of anyone interested in clinical surgical problems.

WILLIAM I. SHEINFELD

Diseases of Metabolism. Detailed Methods of Diagnosis and Treatment. A Text for the Practitioner. Edited by Garfield G. Duncan, M.D. Quarto of 985 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$12.

It is the opinion of the reviewer that this is the best book on the subject of diseases of metabolism in the English language. Dr. Duncan himself is responsible for the presentation of the material on diabetes, which comprises one-third of the entire volume. The other contributors are men who are all experts in their fields.

The metabolism of various food components, minerals, water, and vitamins is discussed, both in

health and in disease. Then come detailed discussions of the following diseases in nutrition: obesity, xanthomatoses, gout, hyperinsulinism, and diabetes. The subjects are all complete and up to date, and much of the material is devoted to practical therapeutics. The entire book is clear and well written. There is an appendix listing foods and their composition, and there are also tables of normal weights. One of the best chapters is that by Peters dealing with water balance in health and disease. He has in this chapter simplified what is ordinarily an extremely difficult subject for the practicing physician to understand. Dr. Peters has also brilliantly discussed the practical significance of disturbances in water balance in many of the diseases with which the internist is confronted.

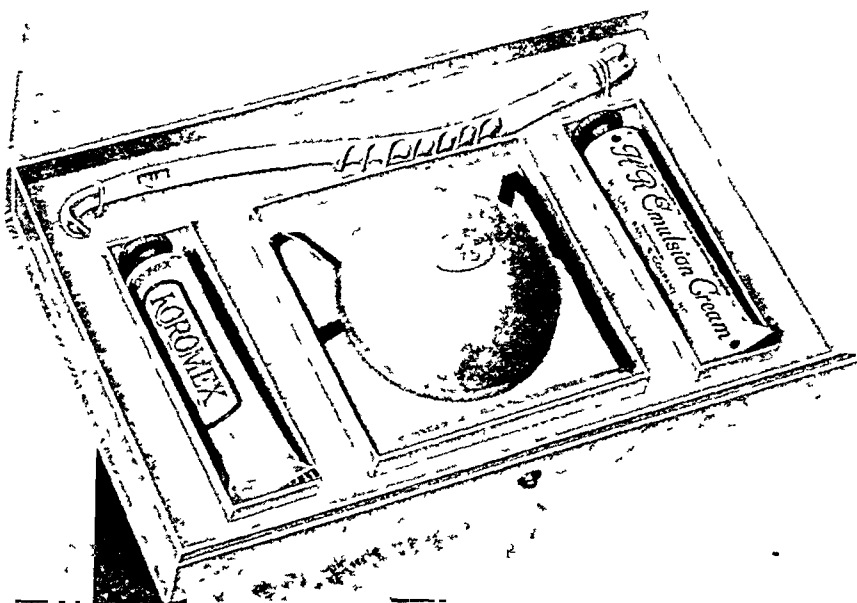
This volume is a good reference book and belongs on the desk of every practicing physician.

WILLIAM S. COLLENS

The Principles of Neurological Surgery. By Loyal Davis, M.D. Second edition. Octavo of 503 pages, illustrated. Philadelphia, Lea & Febiger, 1942. Cloth, \$7.00.

This is an enlarged and revised edition of the 1936 publication of *The Principles of Neurological Surgery*. The author's added experience with a wide variety of lesions of the nervous system is reflected in the present edition. The treatment of tumors, injuries, and infections of the brain and spinal cord and their coverings is well discussed. Illustrative case histories are effectively used throughout. In addition there are chapters devoted to the diagnosis and treatment of pain, the congenital anomalies of the nervous system, the lesion that may be altered by surgery on the sympathetic system, and a variety of disorders less frequently encountered by a neurologic surgeon. As stated by the author, the subject is presented in an abbreviated form in order that the present-day knowl-

(Continued on page 374)



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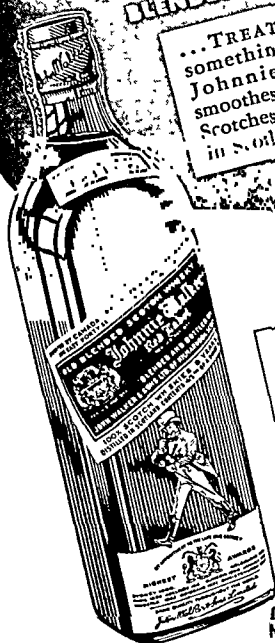
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[Continued from page 372]

edge concerning the surgical treatment of certain diseases of the nervous system may be made readily available to a busy general practitioner.

JEFFERSON BROWDER

Recent Advances in Obstetrics and Gynaecology. By Aleck W. Bourne, M.A., and Leslie H. Williams, M.D. Fifth edition. Octavo of 363 pages, illustrated. Philadelphia, The Blakiston Company, 1942. Cloth, \$5.50.

When one endeavors to record in textbook form the recent advances of any department of medicine, he has chosen a big job. If such a writer is successful, however, a very helpful instrument for those interested is the result. The authors of the fifth edition of *Recent Advances in Obstetrics and Gynaecology*, have, as usual, turned out a very helpful volume. They present briefly and clearly a résumé of all recent material that is of permanent value in obstetrics and gynecology. It goes almost without saying that all this material is not new. On the other hand, the old is "polished up" and thereby brought up to date so that the reader may, with a minimum of time, review the subject and emerge well informed. Time is paramount in these days of "stress and strain" and "blessed be he" who can save precious time and give up-to-date information at the same sitting.

If one must offer specific examples of "best material" in this volume, your reviewer would mention in the division on obstetrics Chapter II ("Post-natal Care"), and Chapter VII ("Radiology in Obstetrics"); in gynecology Chapter XII ("The Sex Hormones") and Chapter XIII ("Ovarian Tumors").

This small volume contains much valuable information. It is written in a terse, flowing, interesting style. One might be ultramodern and truthfully say "it has much packed in little space."

HARVEY B. MATTHEWS

Clinics. Volume 1, No. 1, June, 1942. Edited by George M. Piersol, M.D. Octavo of 264 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1942. Paper, Bi-monthly, \$12 per year.

With this issue, the *International Clinics* alters its policy and name. Henceforth this fine publication will be named *Clinics* and will appear every two months instead of every four.

The present number concerns itself with burns (Ravdin, Harkins) and shock (Rhoads, Scull, Meakins).

There are good clinics from New Orleans, and a good review from Cincinnati on peripheral blood vessels.

ANDREW M. BABEY

Cabot and Adams Physical Diagnosis. Thirteenth edition by F. Dennette Adams, M.D. Octavo of 888 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$5.00.

The general form of this edition follows the previous one, being an enlargement of the standard, valuable work of Richard C. Cabot, a favorite text of many students and practitioners since the first edition of 1900.

The plan of the first author in presenting only the subjects with which he had personal experience has given way to one in which the present author has drawn also upon the experience of his colleagues, mainly from the Massachusetts General Hospital.

A general revision has been made of many sections, especially those on the mouth and teeth, pulse,

heart murmurs, and coronary heart disease. There are 400 excellent illustrations to clarify the text of nearly 900 pages.

W. E. McCOLLOM

Heredity, Food, and Environment in the Nutrition of Infants and Children. By George D. Scott, M.D. Octavo of 778 pages. Boston, Chapman and Grimes, 1942. Cloth, \$5.00.

This is by far the most satisfying book on child nutrition that this reviewer has seen in many years.

It is written with a plan and a purpose. It is original throughout in every way and is not to be regarded as having been copied from various references. Especially commendable are the detailed discussion on the individual food articles, pertinent facts in infant nutrition, and various phases of metabolism.

The book contains a store of information that will prove of value in handling feeding problems in infants and children.

Furthermore, it may be recommended to medical men as well as to students of nutrition. We believe, however, that it is a bit too academic for the average parent or social worker.

HARRY APPEL

Memorable Days in Medicine. A Calendar of Biology and Medicine. By Paul F. Clark and Alice S. Clark. Octavo of 305 pages, illustrated. Madison, University of Wisconsin Press, 1942. Cloth, \$2.00.

In this unusual little book the Clarks have tabulated, under each of the days of the year, the birthdays and deathdays of many of the great figures of medicine and biology. The anniversaries of many great achievements in the field of medicine are listed as well. There are brief biographies and descriptions and numerous small but well-chosen illustrations.

This volume is obviously a labor of love, and the Clarks have succeeded in accomplishing their purpose admirably. Many persons will be interested and entertained in looking up the events which occurred on their own birthdays. The total achievement is minor but worth while.

MILTON PLOTZ

Physicians' Reference Book of Emergency Medical Service. A Compilation, Chiefly from Medical Literature, Presenting the Practical Experience and Lessons Acquired in Handling Civilian War Casualties. Octavo of 268 pages. New York, E. R. Squibb & Sons, 1942. Paper.

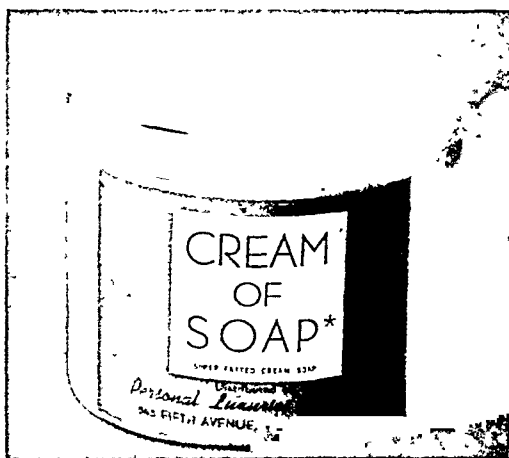
E. R. Squibb & Sons must be warmly congratulated on the excellent book they have published for the medical profession. This reference book is a compilation, chiefly from British and American literature, of a vast amount of useful information on the management of civilian war casualties. There are three sections; one on precautionary measures; another on hospital service; and a final extraordinary chapter on the management of war injuries. The latter includes excellent reviews on shock, burns, fractures, crush, and blast injuries. This book is highly recommended to all physicians.

ANDREW M. BABEY

Industrial Surgery, Principles, Problems and Practice. By Willis W. Lasher, M.D. Enlarged First Edition. Octavo of 472 pages, illustrated. New York, Paul B. Hoeber, Inc., 1942. Cloth, \$6.50.

[Continued on page 376]

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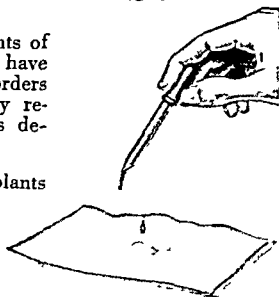
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LIPOLYSIN

MALE

FEMALE

[Continued from page 375]

This is a comprehensive work, having been brought completely up to date. Every conceivable type of injury, particularly as it relates to industry and compensation, is discussed in detail.

When necessary to understand the problem better, sufficient pathology is introduced to make the discussion easily understood. In addition to discussion of the more common trauma to the extremities, there are excellent chapters dealing with cranial injuries, abdominal injuries, and hernia.

In the last chapter chemotherapy and dehydration are discussed. This book is highly recommended for the general practitioner as well as for the surgeon. It is timely that it appears now when the physician may be called upon to care for surgical conditions resulting from accidents which will occur incidental to the ever-increasing employment in the industries associated with the war production program.

MERRILL N. FOOTE

American Surgeon Abroad. By Richard A. Leonardo, M.D. Octavo of 235 pages, illustrated. New York, Froben Press, 1942. Cloth, \$2.50.

The premise of this book is the advantages of a European postgraduate course in preparation for a career in surgery. The author made trips to various clinics in Europe in 1924, 1925, 1936, and 1938, spending most of his time in Vienna and Budapest. "In Hungary in one year's time I obtained more postgraduate surgery than would have been possible in two or more years in a surgical residency in my home city" (The doctor comes from Rochester, New York.)

The book is, however, really a medical travelogue, with enough historical and political references to add to its local interest. There are repeated descriptions of the fine courses in surgical pathology and operative surgery on cadavers. It is evident that the day of independent surgery on living patients by nonresident surgeons from outside the homeland is over, as witness the laws passed by Hungary in 1936. The illustrations are essentially photographs—yes, signed photographs, of the distinguished teachers under whom Dr. Leonardo was privileged to study.

For comparative study in the approach to training in surgery a book published in late 1942, *The Making of a Surgeon*, by Dr. Ernest V. Smith, will deserve a reading. Dr. Smith stresses the surgical residency in some large American center—in his case the Mayo Clinic.

JOSEPH RAPHAEL

Sulfanilamide and Related Compounds in General Practice. By Wesley W. Spink, M.D. Octavo of 374 pages. Chicago, The Year Book Publishers, 1942. Cloth, \$3.00.

The same high standard of the first edition is maintained in this latest edition of the volume on chemotherapy by Dr. Wesley Spink of Minnesota. It is brought up to date with facts on the less well-known "intestinal disinfectants," and is sprinkled with good case studies that illustrate salient facts of treatment. It is an excellent book.

ANDREW M. BABY

Contraception and Fertility in the Southern Appalachians. By Gilbert W. Beebe, Ph.D. Octavo of 274 pages. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$2.50.

Although this book concerns itself chiefly with the population of the southern Appalachians, other areas are incorporated in the study in order to en-

able one to draw more general conclusions and hence to augment its intrinsic value.

The book is written in an interesting fashion, and the author avoids the usage of many complicated biologic terms. Dr. Beebe is successful, also, in conveying a consistent pattern of thought in which he shows that variation in fertility is mainly a result of birth control.

The volume is timely, well written, and concrete.
S. L. SIEGLER

Surgical Pathology. By William Boyd, M.D. Fifth edition. Octavo of 843 pages, illustrated, Philadelphia, W. B. Saunders Company, 1942. Cloth, \$10.

This fifth edition of Boyd's *Surgical Pathology* has been thoroughly revised in text and illustrations. To quote from its preface, "new subject matter includes head injuries, wound infections, anaerobic streptococcal infections of the skin, burns, dermatofibroma, Hurthle cell tumor, duodenitis, chronic ulcerative colitis, liver death, bile peritonitis, pyelonephritis in relation to arterial hypertension, acid phosphatase in carcinoma of the prostate, interstitial endometrioma, plasma cell mastitis, fibrosing adenomatosis of the breast, osteomyelitis of the frontal bone, Arnold-Chiari malformation, skeletal lipid granulomatosis, injuries and tumors of the nerves, synovial sarcoma, Ollier's disease, Morguio's disease, osteoid-osteoma, reticulum sarcoma, liposarcoma and eosinophilic granuloma of bone."

There has been included the surgical pathology of the middle ear and the thorax. The reviewer feels that this may be convenient for the surgeon and perhaps flattering to the specialist, but after all the thoracic organs are parts of systems and should be treated as such rather than in a sketchy few pages.

To those who are familiar with the previous editions of this work, there is no need to extol the excellence of it. However, to those who are not, the reviewer sincerely suggests that they immediately acquaint themselves with it. For the surgeon and the pathologist it contains a wealth of necessary information, and for the general practitioner and the student it presents an admirable picture of surgical pathology of today.

MAX LEDERER

Superior Children Through Modern Nutrition. How to Perfect the Growth and Development of Your Children from Birth to Maturity. By I. Newton Kugelmass, M.D. Octavo of 332 pages. New York, E. P. Dutton & Company, 1942. Cloth, \$3.50.

During the past decade there has been a growing tendency to feed and handle children from a group standpoint. This has come about through the establishment of more and more well-baby clinics. Since in many instances these clinics have become overcrowded, babies usually have to fit the formulas and routine used in these clinics. In other words, the baby has been lost sight of as an individual and as a composite whole. Therefore, this book, written for parents who have infants and children to rear, stresses individualization as to diet and all other phases of health routine.

The scientific selection of food to make up a normal dietary is well handled in this volume.

After reading the book, it should be easy for one to figure out a well-balanced diet even in these days when rationing is becoming a problem.

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*Cowett: Meet. N.Y. Proc. Soc.—Apr. 15, 1942

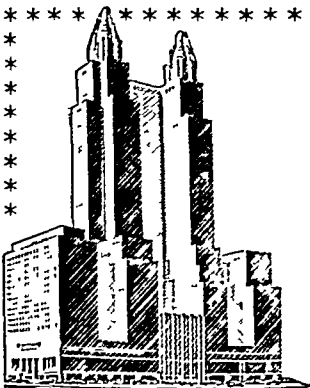
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TUBERCULOSIS AND THE WAR—CANADA

The fall in the death rate from tuberculosis in Canada, which has been so evident for the past quarter of a century, has occasioned in some quarters a false sense of security. Nothing could be more unsound or misleading. A disease that kills nearly 6,000 of the population, leaves at least 30,000 incapacitated, and costs the country directly at least \$8,000,000, annually, is still a formidable enemy and a major public health problem.

If control of tuberculosis is to be maintained in wartime, tuberculosis services must be continued, problems that arise as a result of the war must be attacked and advantage taken of wartime case-finding projects. Case finding has kept ahead of treatment facilities, which have been inadequate, and until both are developed to a greater degree, control of tuberculosis is still hidden in the future.

Two of the most important phases of case-finding services available are (1) for the general practitioners to provide an early diagnosis, since

this is still the greatest source of cases, and (2) examination of contacts, the next greatest source.

Two opportunities have presented themselves as a result of the war: the x-ray examination of all recruits for the armed forces, and case-finding projects among industrial workers, particularly in war industries. Tuberculosis is two and a half times as great in industry as in the general population. Therefore, the control of tuberculosis is an important phase of industrial hygiene.

Emphasis is being placed on retaining the open case of tuberculosis in sanatoria. Every patient who leaves against advice represents a weakness in the tuberculosis control system. The factors involved should be carefully analyzed and every way possible must be sought to remedy conditions in institutions to offset this failure in efficient segregation.

The Control of Tuberculosis in Wartime, G. J. Wherrett, Can. Public Health Jour., Sept., 1942.

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ANOTHER *-.-!!! CONFERENCE

"I hate most conferences," begins a booklet distributed by Hammermill Paper Co. on how to harness a conference, by Don Herold, "but you gotta have 'em."

"I have sat in many a business conference and squirmed in pain at the spectacle of so many high-powered, high-salaried men fiddling their time away so foolishly. A conference can often get nowhere faster than any other form of human cooperative effort. 'Mr. B—— is in conference' has almost become the standard joke for the funny papers when they wish to kid the American business man.

"But conferences are necessary, and they will always have to be held, and some of them move fast and get things accomplished. There is no reason why 12 men in a room should add up dumber than any one of the 12. Twelve men in a room ought to be at least 12 times as smart as any one of them. If managed the right way, 12 men in a room should stimulate, rather than nullify, each other. That is the ideal for a conference.

"But conferences first have to lick their reputation for futility. If the participants in a conference come with an attitude that it is going to be 'just another conference,' it will be just that.

"How can conferences be harnessed? How can their brain-power be diverted from doodling to doing? This booklet does not promise to galvanize all conferences into efficient action. But it will struggle to suggest a few ideas which may help make conferences better."

Some of the ideas recommended by the author suggested more writing and less talking in connection with every conference—the use of printed forms because they help conferences to get down to real business, instead of monkey-business—time should

be given to those called into conference to avoid disruption of everybody's routine work—"conference calling forms" should give advance notice of the subject or subjects to be discussed so the victims will have some chance of thinking ahead—keep conferences brief, the shorter they are the better the result—and check back after a conference to see if the things certain people were supposed to do, were done.

As a closing, the author gives these odds and ends on conferences: "A special file folder on each conference may be a good idea. In this can go carbons of advance notices, memos on the conference, follow-up memos on correspondence, reports on progress, etc.

"Writing pads and pencils should be ready on the table. And of course a suitable supply of ash trays

"Oh, yes, phone calls! Keep them out of the room, if you can. Arrange to have messages taken and call-backs promised, if necessary. Keep your conference on the beam!"

TAKE A SLOGAN

To "get there fustest with the mostest men" has had a great revival in the news of the present world melee. "To little—too late" probably inspired the Greater Boston United War Fund's "Give enough—soon enough!"

Not a bad phrase for a medical practice, for given enough attention—soon enough, almost any case of illness is easily remedied.

"Give until it hurts" might do for a fund raising job, but never in this world for a doctor. Imagine a physician (or a dentist) using this phrase as a driving force!

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NO TRAVEL RATIONING

In spite of many conjectures that something will be done to curtail civilian rail traffic, the Office of Defense Transportation recently expressed openly an opposition to all plans for rationing travel on our railroads.

The principal weakness of all transportation rationing schemes involves the complexity of railroad travel—the thousands of ticket offices and millions of travelers which would require tremendous administrative rationing machinery.

No democratic country has ever worked out a satisfactory plan. Great Britain has rejected a travel permit system during the war because of its complexity, its demands on manpower for administration, and the inconvenience and delay it would create for those who must travel on necessary business.

During 1941, the railroads carried 254,000,000 persons, exclusive of commuters. With the increase last year to probably 400,000,000, the ceiling has probably been reached. If the railroads were able to manage that job, it will be able to continue doing so—barring fuel problems.

COMPARED TO THOSE, MEDICAL WORDS ARE ABC

A distributor who is a hawk for the unusual sent a folder to his prospective customers with the following fantastic words:

Hottentottenpotentatentatenattentaeter

This word of 38 letters means "Hottentot Potentate's Aunt's Assassin," and the saying of it was used as a test of drunkenness by the Berlin police force in Germany (before Hitler undoubtedly). If you can say it, you are sober.

Chargoggagoggmanchaugoggehaubunagunga-maug

This word of 43 letters is the old Indian name of Webster Lake in Massachusetts. It is possible that Noah Webster took all the letters to be found in his dictionary out of this name.

Llanfairpwllgwyngyllgogerychwyrndrobwllllantysiliogogoch

This word of 58 letters is the name of a town in North Wales and it is said to be the longest name in any language. Translated it means "Church of St. Mary in a hollow of white hazel, near to a rapid whirlpool and to the St. Tysilio's-Church near to a red cave." When the railroad train arrives at this town, the conductor announces, "If there's anybody here for there—this is it."

But, says the distributor, here is the longest word in the English language:

Emeredithterrymanufacturersrepresentativeisnowlocatedinthempirestatebuildingnewyorkcity

A LESSON IN ANATOMY

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ANNUAL MEETING

of the

**Medical Society of the
State of New York**

Members of the House of Delegates will do well to make reservations at the Hotel Statler in Buffalo now for May 3 and 4, 1943. This applies also to those planning to attend the scientific sessions beginning on Tuesday May 4 and extending through Thursday May 6, 1943. Address the Manager of the Hotel Statler, Buffalo.

Peter Irving, M.D.
Secretary

THE SALVAGE JOB

Getting every ounce of critically needed waste materials into the flow of manufacturing implements of war is the important task of the Salvage Branch of the Conservation Division, WPB. "Junk" is something that every man, woman, and child must now treat with respect if we are to "get in all the scrap" so vitally needed.

Paul C. Cabot, Deputy Chief of the Conservation Division, declared recently that "if our production schedule is to be maintained 17,000,000 net tons of purchased iron and steel scrap are needed to give the iron and steel furnaces sufficient inventories to prevent shut-downs during the months to come."

To treat this problem, the WPB through its Salvage Branch approaches the problem of "getting in the scrap" in four major ways:

First—An Industrial Salvage Section is charged with the responsibility of educating industry to salvage all critical waste materials, to speed up the return of these materials into the war production stream, and to help industry to use established channels of disposal. Scrap in this effort is classified as "dormant" and "production." "Dormant" scrap is defined as obsolete machinery, tools, equipment, dies, jigs, fixtures, etc., which are unsuitable for current or future use because they are broken, worn-out, dismantled, irreparable, or in need of parts no longer available.

Second—A General Salvage Section is charged with establishing salvage programs in local community areas, appointing local committees and directing their activities. Their salvage operation extends to every household including farms, all retail stores, garages, hotels, small businesses, and the smaller industrial organizations in rural areas. Some 12,500 state and local salvage committees are aiding in this job.

Third—The Special Projects Salvage Section is responsible for salvaging large accumulations of secondary and waste materials that are tied up due to financial, legal, political, and other reasons which impede the work of other Sections in the normal course of operation. Special projects include such things as abandoned railroads, streetcar lines, factories, bridges, etc.

Fourth—The Automobile Graveyard Section, now operating through 254 field representatives, has the job of seeing that some 20,000 graveyards in the country function as producing units. It is essential to keep these automobile graveyards as operating scrap-producing units. It is mistakenly believed by most people that the best results can be obtained by the elimination of automobile dumps. But in view of the fact that anywhere from a million to two and a half million cars come off the roads annually to enter graveyards, it is essential that such places be kept in operation as an important continuing source of scrap metal supply.

* * *

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ADVERTISING IN A WARTIME ECONOMY

Watching advertisements may well be considered as important as watching scientific articles for the latest developments in the science of medicine. Especially now, when so many changes may occur in products or sources of products due to restrictions in materials or manufacture.

Even as it is essential for the producer to keep in touch with his market, so it is just as imperative that the consumer, or the prescriber, know what is still available and where it can be obtained. And don't depend entirely upon what may have been heard indirectly!

A recent incident of a rumor creating a wrong impression is the case of a manufacturer of appliances who found that somehow word had been passed around that he was out of business for the duration. He might have gone on blissfully losing business if a representative had not happened to call on one of the physicians who had heard "that this concern had closed up shop for lack of material and labor." Maybe the manufacturer was largely to blame for

not keeping his market sufficiently informed, and the physician may have been partly to blame for taking a casual remark at face value.

BUT—the real seriousness of skipping the advertisements is the ever-present possibility today of changes in formulas of pharmaceutical and biological products. Potencies may have to be changed and in some cases an ingredient may be omitted or substituted.

The producer has no intention of keeping you in the dark concerning such changes. If it is a material change, he wants you to know it and often his notification must depend on your seeing his advertisement.

Then, too, there may be a time when some item is needed in a hurry. If you know who is still able to supply it you may avoid the possibility of thinking you will have to get along without it.

Abnormal conditions connected with a military economy produce new and special advertising messages vital to continuing an efficient practice.

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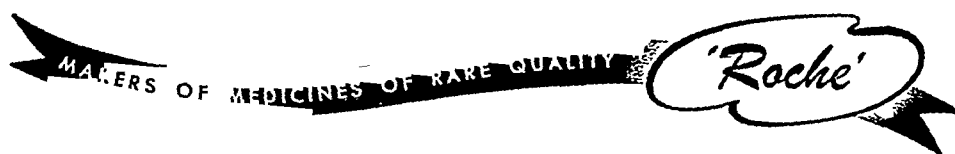
Quality carries on



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What could be a more sensible formula for the control of cough?—Thiocol to act as a sedative expectorant; codeine phosphate to inhibit the cough reflex and to produce a sedative effect; sodium citrate and citric acid to liquefy tenacious bronchial secretions; and chloroform to relieve throat tickle. These are the ingredients of Citro-Thiocol 'Roche.' In addition to its effectiveness in the control of even the most stubborn cough, Citro-Thiocol is pleasant tasting and appealing in appearance—a remedy in keeping with the pharmaceutical elegance of all Roche preparations. Supplied in 4-ounce, 1-pint, and 1-gallon bottles. HOFFMANN - LA ROCHE, INC., NUTLEY, NEW JERSEY.



Anemia and The Ides of March

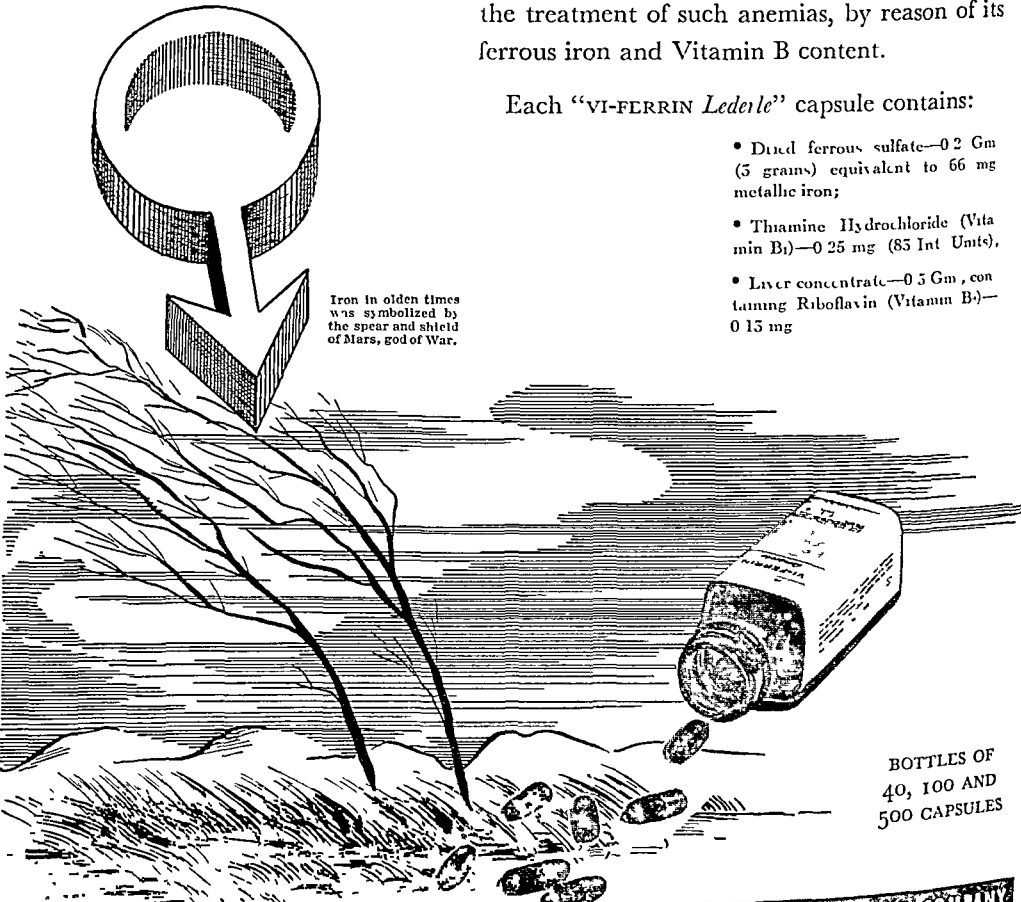
VI-FERRIN *Lederle*

SECONDARY ANEMIA follows closely the many respiratory and other infections so prevalent in early spring. Once the course of the infection has been arrested, treatment of the secondary anemia so frequently present should be commenced. This treatment should be directed not only toward hemoglobin regeneration, but also toward remedy of the dietary anorexia.

"VI-FERRIN *Lederle*" is particularly suited to the treatment of such anemias, by reason of its ferrous iron and Vitamin B content.

Each "VI-FERRIN *Lederle*" capsule contains:

- Dried ferrous sulfate—0.2 Gm (5 grains) equivalent to 66 mg metallic iron;
- Thiamine Hydrochloride (Vitamin B₁)—0.25 mg (85 Int. Units),
- Liver concentrate—0.5 Gm, containing Riboflavin (Vitamin B₂)—0.15 mg



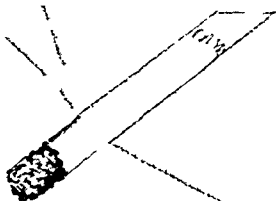
Iron in olden times was symbolized by the spear and shield of Mars, god of War.

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IT'S EASY to understand why cigarettes are the preferred gift in the armed services. But did you know that among them the best-liked brand* of cigarette is Camel? Camel is the popular choice of millions and millions of smokers for its finer flavor and superior mildness.

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Tobacco stores feature Camels by the carton. See or telephone your dealer today.

Remember, you can still send Camels to Army personnel in the U.S., and to men in the Navy, Marines, or Coast Guard *wherever they are*. The Post Office rule against mailing packages applies only to those sent to the overseas Army.

* With men in the Army, the Navy, the Marine Corps, and the Coast Guard, the favorite cigarette is Camel. (Based on actual sales records in Post Exchanges and Canteens.)

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Anemia and The Ides of March

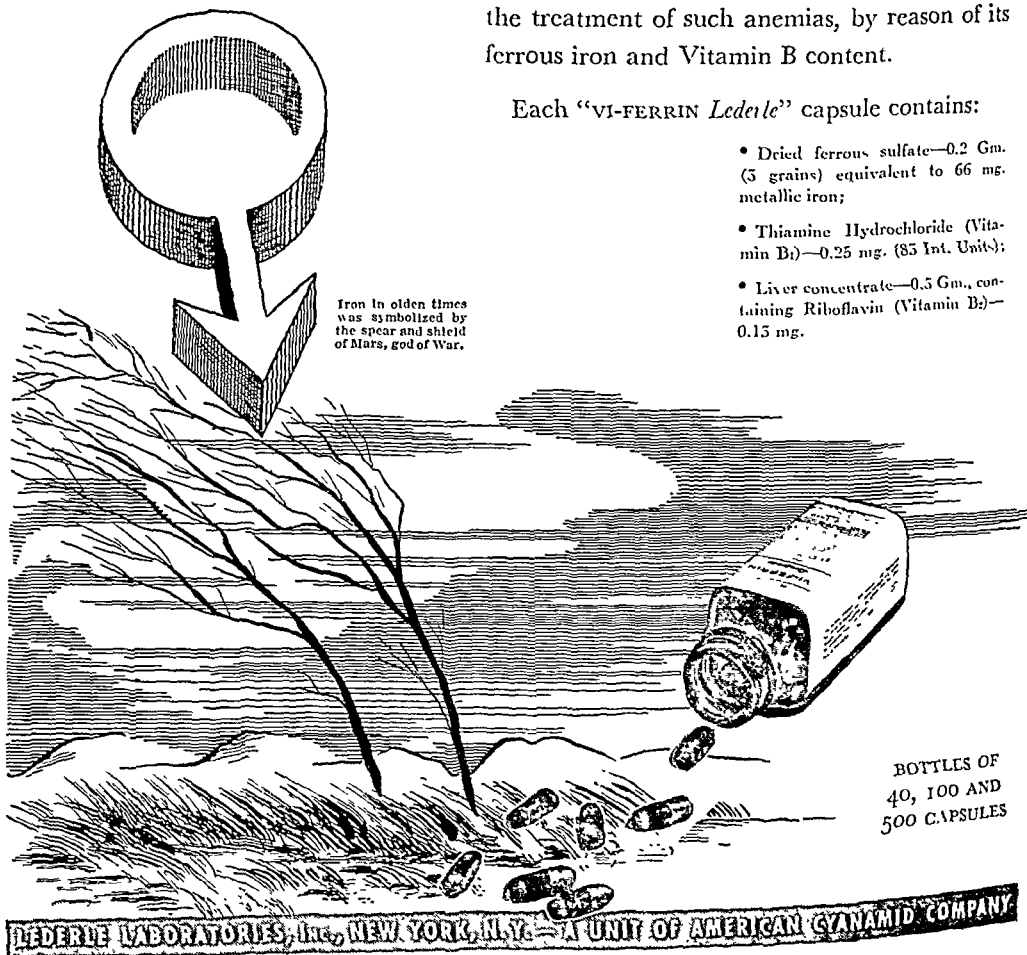
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VOLUME 43

MARCH 1, 1943

NUMBER 5

Published twice a month by the MEDICAL SOCIETY OF THE STATE OF NEW YORK. Publication Office: 20TH AND NORTHAMPTON STS., EASTON, PA. Editorial and Circulation Office: 292 MADISON AVE., NEW YORK, N. Y. Change of Address: NOTICE SHOULD STATE WHETHER OR NOT CHANGE IS PERMANENT AND SHOULD INCLUDE THE OLD ADDRESS. Fifty cents per copy—\$5.00 per year. Entered as second-class matter March 13, 1939, at the Post Office at Easton, Pa., under the Act of August 24, 1912.

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*Barrows: N. Y. St. Jr. Med. Vol. 41, 1/15/41



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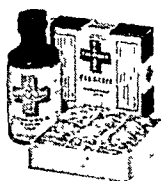
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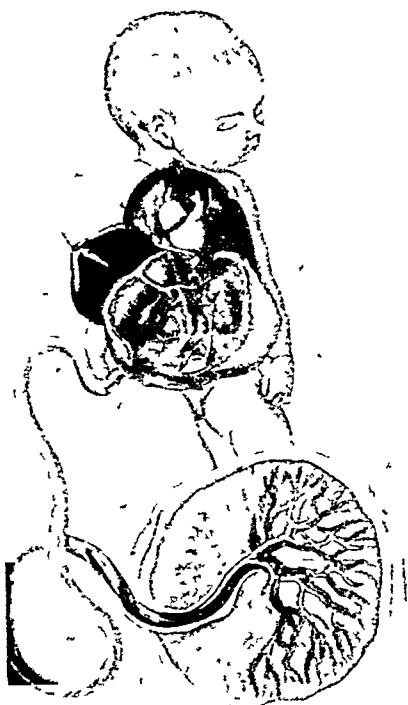
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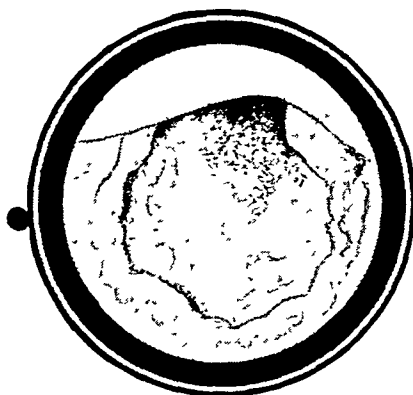
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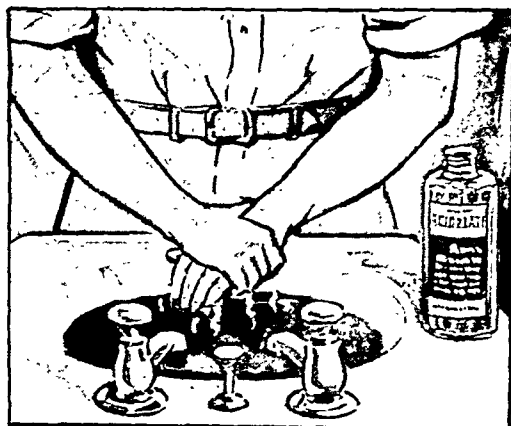
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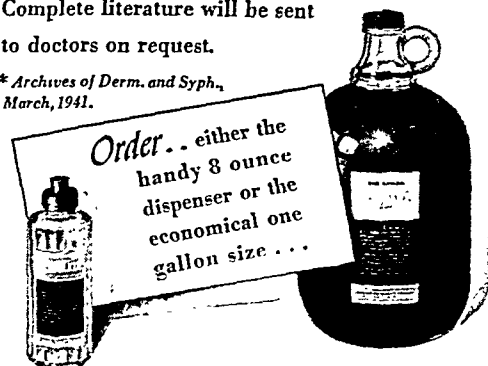
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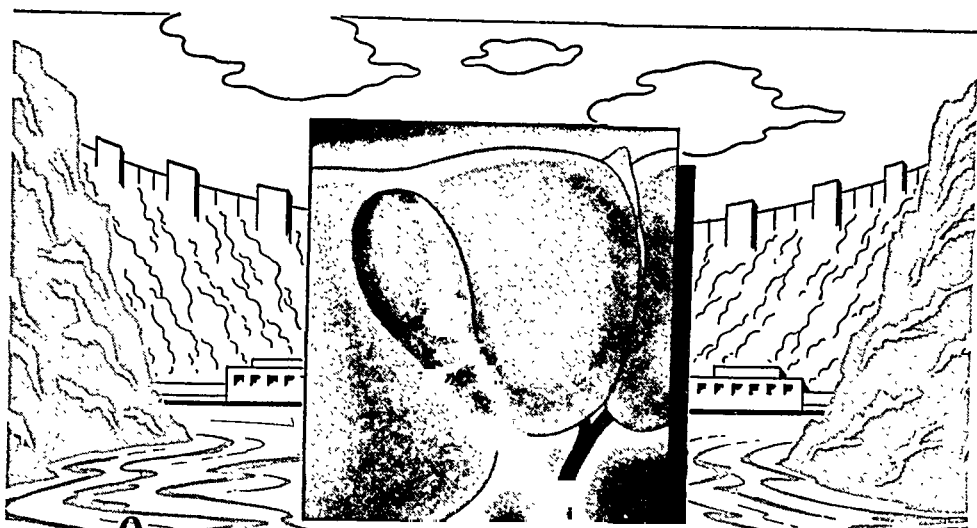
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1. Anesthesia and Analgesia 21:229, July August, 1942
2. Canadian Med Assoc J 46:315, April, 1942



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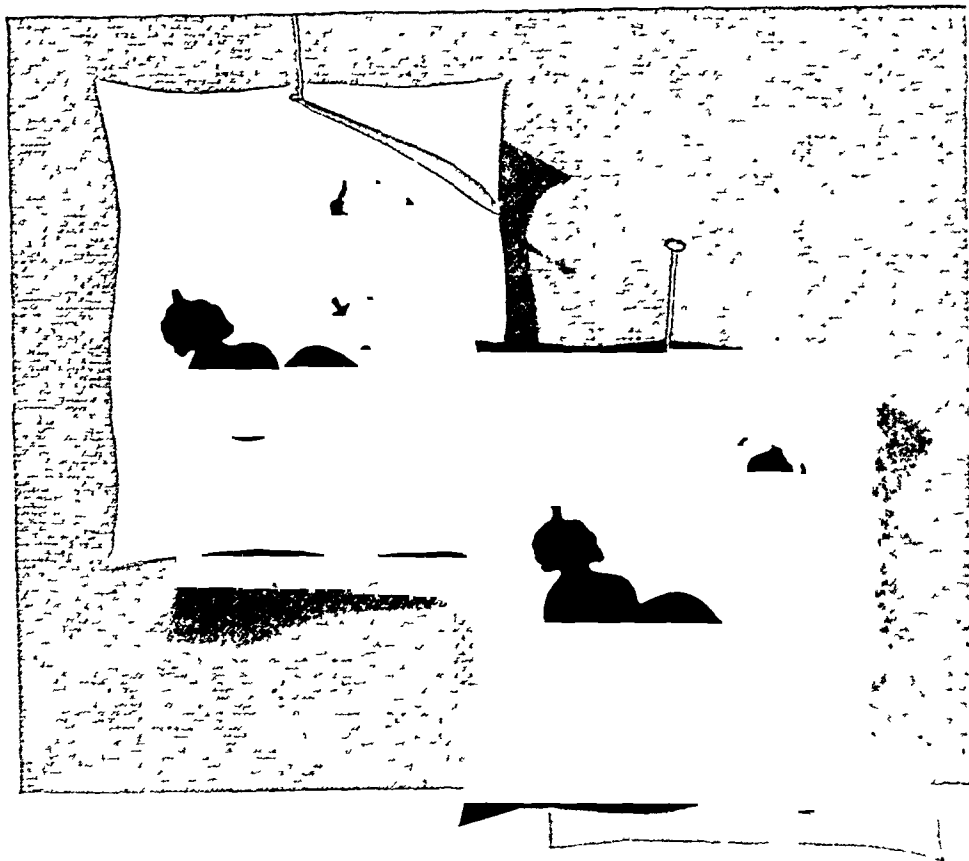


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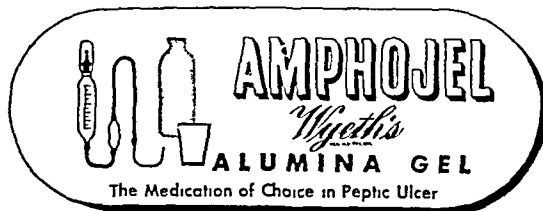


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VOLUME 43

MARCH 1, 1943

NUMBER 5

Editorial

Annual Meeting, 1943

The Convention Committee of the Council is now able to announce that arrangements for the 137th Annual Meeting of the Medical Society of the State of New York are progressing most satisfactorily. The place, as previously announced, is the Hotel Statler in Buffalo. The meeting will open on Monday, May 3, and continue through May 6.

The keynote of the scientific meeting will be "War Medicine and Surgery." Not only will papers of the general and section programs stress the newer things in the scientific and general practice field, but also exhibits are being planned which will show dynamically the many varied aspects of medicine's wartime needs, for the civilian population as well as for the fighting forces. The Office of Procurement and Assignment will have a booth on the seventeenth floor, where Dr. J. R. Clemmons and Dr. McGill Burns will be prepared to answer any and all questions concerning the medical manpower situation in this state.

This year there will be several new procedures. First, the annual banquet will not be held. The Convention Committee of the Council, wishing to cooperate with the government's request for maximum food conservation, has proposed this omission from our usual procedure. At the time that the banquet would have been held, namely Tuesday evening, May 4, there will be a dinner meeting of the Chiefs

of Emergency Medical Service of the counties of the state, or their deputies. This dinner meeting is being held at the suggestion of the OCD. Col. George F. Baehr will give an address and will act as chairman of the meeting. Questions from the floor will be in order.

The Convention Committee is seeking to prepare a program specifically directed at the needs of the physicians of the state who are responsible for their communities' health. It is anticipated that with men returning from all parts of the world, tropical disease will become a factor in the health of many communities. Every physician who attends will be enabled to acquire information on war medicine and surgery, on tropical diseases, on industrial medicine and surgery which is more recent and up to date than that which he can get from any textbook. It is therefore to the interest of every community in the state to have its available doctors attend this annual meeting. After having done so, they will go back to their community better informed and better prepared to care for their patients' health and thus to contribute maximally, through the improvement of general health in their locality, to the health of the nation.

Other scientific exhibits will cover the subjects of shock, the blood plasma program, war gases, tropical diseases, tuberculosis, and first aid for doctors.

Note the dates of the meeting *now*.



See important notice on page 420



Venereal Disease

In 1942, the rate of prevalence of syphilis in the entire male population of the United States between the ages of 21 and 35 was estimated to be 47.7 per thousand, based on serologic blood test reports of 1,895,778 white and Negro men, who, according to Vonderlehr and Usilton, were tested under the provisions of the Selective Training and Service Act of 1940.¹ The rate of prevalence in the entire male population 21 to 35 years of age, from rural areas, is 49.4 per thousand, and from urban areas, 46.5 per thousand.

What are the facts for the State of New York? Dr. Edward S. Godfrey, Jr., Commissioner of Health, reports for the state exclusive of New York City "that there has been an increase of 9.7 per cent in case reports received for early syphilis for patients of all ages during 1942 as compared with 1941. In the age group of 15 to 19 years, case reports were received to a number 38.9 per cent greater than in 1941. On the same basis of comparison, primary and secondary syphilis increased 54.3 per cent and 16.7 per cent, respectively. These figures appear to be significant, inasmuch as the downward trend in case reports for syphilis has been generally reversed for the first time in our experience of six years of complete case reporting."²

"A 'serious rise' in venereal disease was noted in 1942, according to the annual report of the city health department. For the first eleven months of the year there were 28,068 cases of syphilis recorded, an increase of 13 per cent over the corresponding period for 1941. A total of 11,208 cases of gonorrhea was reported, with the number of unreported cases thought to be many times greater, according to the *New York Times*. Neither venereal disease nor any other vital statistics of service men on duty are included in the city reports."³

New York City Department of Health figures for eleven months of 1942⁴ show for early syphilis in the 15-to-19-year group an increase of 44 cases reported over 1941, and for the age group of 20 to 24 an increase of 137 cases. For all stages of syphilis the 15-to-19-year group shows an increase

of 117 cases, the 20 to 24 group an increase of 52 cases. In New York City, from 1938 through 1941, the trend for early syphilis—all ages—has been downward, 1941 being 41.5 per cent below 1938. For all stages of syphilis, case reports in 1941 were 26.7 per cent below those reported in 1938. Reported cases, in both early and more advanced stages, for the eleven months of 1942 show a slight numerical increase over 1941. Thus the trend seems to be decidedly upward in the entire state since 1941.

For what reasons was the trend downward for five years? Why has it particularly increased for the 15-to-19-year group during the last year? Conditions arising from the war as they affect the family and the individual may in some measure be responsible, but in what measure? The national picture of 47.7 per thousand serologic positives in the age group of 21 to 35 in 1942 is not encouraging. The state picture for the 15 to 24 group, which shows an increasing number of infections in the young, is no better.

What can be done about it? Current agitation for the better conservation of manpower and woman power should make these trends in the incidence of venereal disease of paramount interest to the medical profession as well as to the government.

The Health Commissioner of New York City, recognizing the seriousness of the rise in venereal disease incidence, requested high-school instruction in social hygiene.

"The Board of Education has granted permission to the City Department of Health to use four schools to give pre-induction training courses on Saturday mornings. The Board of Education had refused to include such a course in the regular curriculum. In a letter to the Health Commissioner, Ernest L. Stebbins, John E. Wade, deputy superintendent of schools, wrote that, should the health officials decide to organize these classes, 'the Board of Education will not identify itself in any way with your proposals and we will not be in any position to advertise the lectures to the students; we will make

available premises to you as we would to any other organization, but you must undertake the enterprise as a project of the Department of Health wholly unrelated in any way to the Board of Education.' The request for high-school instruction in social hygiene was made by Dr. Stebbins because of a 20 per cent increase in venereal infection among boys and girls 15 to 19 years old. In granting permission to use the schools, the Board stated that any legitimate organization had the right to use the schools on Saturday mornings provided the facilities were available."⁵

It is certain that the problem of a rising incidence of venereal infection in young

persons will not solve itself! Nor can it be ignored. It seems evident that it must be combated largely by educational methods of some kind, but as yet the technics of such methods have not been worked out. Here appears to be an opportunity for physicians, educators, specialists in public health, and government to establish, in collaboration, an effective method to combat what appears to be a growing menace to the public health.

1. A.M.A. News (Dec. 24) 1942.
2. Letter (Jan. 12) 1943.
3. Letter (Dec. 31) 1942.
4. J.A.M.A. 121: 363 (Jan. 30) 1943.
5. J.A.M.A. 121: 203 (Jan. 16) 1943.

Accidents in the Home and on the Farm

The National Safety Council estimates that home accidents result in an annual economic loss of about \$600,000,000. Furthermore, home accidents are responsible for about 34.5 per cent of all fatalities and for 53 per cent of all disabling injuries resulting from accidental causes. There is danger that in emphasizing the industrial health programs and industrial accident prevention it may be forgotten that about 61 per cent of deaths and injuries to industrially employed persons occur while they are not at work, and in a large proportion while they are at home.

That personal health plays an important role in accident prevention is recognized in the New York State program on Home and Farm Safety set up by the New York State Department of Health. A committee on Personal Health and Safety has been suggested by the National Safety Council, under whose impetus the New York State program is proceeding. The general chairman of the New York State program, B. R. Rickards, Director of the Division of Public Health Education, has named chairmen of the ten committees. Dr. J. G. Fred Hiss is chairman of the committee on Personal Health and Safety. Other phases of the program call for the cooperation of architects and builders, agricultural engineers, household equipment manufacturers and dealers, landscape architects, public

health nurses, teachers, and other professionally trained personnel in a position to contribute to home safety. The interest of a large number of state organizations has also been obtained. These organizations plan programs of study for their respective memberships, and many of them will participate in community education as well.

Outstanding among the organizations, in addition to the State Medical Society and State Nurses' Association, are the State Grange, the State Federations of Home Bureau, Farm Bureau, and 4-H Clubs, the State Congress of Parents and Teachers, the State Federation of Women's Clubs, the American Legion, and many other groups.

The program of education is advancing along many important fronts, with a special contribution to the public interpretation of the work coming through the Governor's proclamation on Labor Day, which was followed by a series of newspaper releases and radio talks promoted by the State and Local War Councils.

Facilities for educational interpretation are being developed. The American Red Cross will provide instructors for a nine-hour course in Home Safety, with certificate granted upon completion of the study. The Metropolitan Life Insurance Company, Travelers Life Insurance Company, John

Hancock Life Insurance Company, and other insurance companies have developed literature, exhibits, motion pictures, and other helps. The State Department of Health has twenty panel exhibits for loan to communities and soon will have a talking slide film. Physicians are urged to cooperate in this program by calling attention

to accident hazards in the homes that they visit, by assisting on committees, and by giving talks. An outstanding contribution by physicians will be in recognizing personal health conditions that might induce accidents and in warning the individual or family of the situation so that additional precautions may be taken.

Correspondence

WORKMEN'S COMPENSATION BOARD
MEDICAL SOCIETY OF THE COUNTY OF NEW YORK
292 MADISON AVENUE, NEW YORK CITY

February 11, 1943

Editor

NEW YORK STATE JOURNAL OF MEDICINE
292 Madison Avenue
New York City

Dear Sir:

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THE DIFFERENTIAL DIAGNOSIS OF HYPERPARATHYROIDISM WITH ESPECIAL REFERENCE TO ALBRIGHT'S SYNDROME

L. W. GORHAM, M.D., Albany, New York

THE differential diagnosis of hyperparathyroidism may be difficult, even though the history and roentgenograms in a particular patient with chemical and biopsy studies may point strongly to this diagnosis. As is well recognized, a hyperfunctioning parathyroid gland containing an adenoma produces a widespread decalcification of the skeleton, leading to the condition known as generalized osteitis fibrosa cystica (von Recklinghausen's disease). Hyperparathyroidism is insidious in onset, more often affecting women than men, with the greatest number of cases occurring in midlife. The symptoms are numerous and variable. Most common are bone and joint pain, pathologic fractures, muscle weakness, disturbances of gait, and, late in the disease, marked deformities of the bones. In a smaller number of cases renal and gastrointestinal symptoms appear, such as polyuria, polydipsia, renal colic, anorexia, nausea, vomiting, epigastric pain, and marked loss of weight. The chemical changes in calcium and phosphorus metabolism produced by the increased activity of the parathyroid glands are quite characteristic. Under normal conditions these small glands regulate the metabolism of calcium and phosphorus in the body within rather narrow limits, maintaining the level of blood calcium at 9.5 mg. to 11 mg. per cent, and the blood phosphorus at 3 mg. to 4.5 mg. per cent. With the onset of hyperparathyroidism, calcium is withdrawn from the bones, the blood phosphorus level falls, and the blood calcium rises sharply. The excretion of both calcium and phosphorus in the urine is also increased. The blood phosphatase is usually increased, indicating a rise in new bone production. The normal figures for phosphatase are 1.5 to 4 Bodansky units in adults. The constant drain upon the skeleton with calcium loss leads to pathologic bone which is soft, pliable, and readily fractured. The x-ray films show a general decalcification, with thinning of the cortex and trabeculae of the long bones. The skull appears finely granular, and there may be apparent cyst formation in the shafts of the bones. Operation and autopsy have shown that what appear to be cysts by x-ray are actually areas of fibrous tissue replacing bone.

Von Recklinghausen, in 1891, described 3

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942

From the Department of Medicine, Albany Medical College Union University, Albany, New York

cases of fibrous osteitis, and his name has since been attached to the disease. Although various authors had suspected the relationship of parathyroid tumor to von Recklinghausen's disease, it was not until 1925, when Mandl¹ successfully removed one of these tumors with marked benefit to the patient, that its true significance and importance were established. The first case to be recognized in the United States was studied by Dr Eugene F. Dubois² in 1926. The old sea captain, Martel, required seven operations before the parathyroid tumor was finally located in the anterior mediastinum. Barr, Bulger, and Dixon³ reported the first proved case in this country in 1929. Since then a large number of cases have been described, Wilder and Howell⁴ being able to collect 135 undoubted examples from the literature in 1936. In June of that same year a patient was admitted to the Albany Hospital who illustrates the first and most important condition to be differentiated from hyperparathyroidism.

Case Report

History—Mrs. G. R., 25 years old, a laundry worker, complained of pain and swelling in the left forearm, attributed to an injury in November, 1935. Past history was noncontributory except that in 1930 she suffered a fracture of the right femur, at which time an x-ray diagnosis of osteitis fibrosa cystica is said to have been made. Examination showed slight deformity of the left forearm with swelling in the region of the upper portion of the radius. The left humerus felt thickened. The right femur was bowed anteriorly and externally, and there was a shortening of the right leg of $\frac{3}{4}$ inch. The right tibial shaft was palpably thickened. There was a pigmented spot on the left buttock, the presence and significance of which was not realized until later when the patient was seen by Dr. Fuller Albright.

The roentgenographic examination of the skeleton showed marked changes involving the left radius, the left humerus, the metacarpal bone of the left index finger, the fifth rib on the left side, the right ilium, left ilium, left ala of the sacrum, the superior ramus of the left pubis, the inferior ramus of the right pubis, the tuberosity of the right ischium, the right femur, and the right tibia.

Laboratory Data—The urine was negative. Bence-Jones protein was not present. The Wassermann reaction was negative. The blood count was normal. Blood calcium was 13.5 mg., 11.5 mg., and 10.4 mg.; blood phosphorus, 5.2 mg., 7 mg., and 3 mg.; blood phosphatase, 7.4 Bodansky units. Biopsy of the fifth left rib was reported as showing typical osteitis fibrosa. Although the blood calcium

was found to be elevated only once out of three examinations and although the blood phosphorus was never below 3 mg. per cent, it was felt that with such suggestive x-ray and biopsy findings the patient was entitled to exploration of her neck for the removal of a possible adenoma of the parathyroid. Operation was performed by Dr. Eldridge H. Campbell on July 22, 1936. The four parathyroids were located and examined, but no adenoma was found. The upper right parathyroid was considerably larger than any of the other three glands. This was removed but showed no signs of tumor on histologic examination. Some months later Dr. Fuller Albright saw the patient at my request and pointed out the small area of pigmentation on the buttock. He stated that he had seen several cases with osteitis fibrosa, skin pigmentation, and precocious menstruation, which had been confused with hyperparathyroidism. Our case apparently fell in this group, although there was no history of sexual precocity. The patient was of Nordic stock, however, and the menses had begun at 14 years, while those of her mother and sister had begun at 18 years. The patient gave birth to twins in February, 1937, and in May, 1941, the mother and both children were examined. The children showed no signs of osseous disease by x-ray and no skin pigmentation, while their mother's condition remained unchanged.

In 1937 Albright⁵ and his associates described 5 cases and, in 1938, 2 more⁶ which showed the bizarre combination of three apparently unrelated features, viz. (1) osteitis fibrosa cystica, (2) brown pigmented skin spots, and (3) precocious puberty (particularly in females). Three of these patients had been operated upon in other hospitals in a vain search for parathyroid adenoma. In reviewing the literature one finds that at least seven examples of this syndrome had been reported in females and five in males before Albright's paper was published. The precocious puberty, however, was lacking in the males. The first example of this curious condition was described by Weil⁷ in 1922 before a medical society meeting in Breslau. The patient was a 9-year-old girl who had begun to menstruate at the age of 1½ years, had suffered eight fractures, revealed the secondary sex characteristics of a girl of 15 years, showed by x-ray scattered bone changes with precocious bone development, and had abnormal pigment deposits in the skin. Weil thought he was dealing with a disturbance of the adrenal glands. Albright suggests that the syndrome is due to some neurologic or embryonic defect in the region of the hypothalamus. A total of 32 cases (16 females, 16 males), conforming to Albright's original description, has been recorded to date.⁸ Thirteen of these have been confused with hyperparathyroidism and were operated

upon but no tumor was found. Three of the patients were operated upon twice.

In addition to the 32 cases which conform to the picture described by Albright, there are to be found also 19 cases which possess one and occasionally two of the diagnostic criteria. These may be designated as the incomplete form of Albright's syndrome. Thus Salzer⁹ in 1933, Gaupp¹⁰ in 1932, and Borak and Doll¹¹ in 1934 reported cases with menstruation beginning at 2, 3, and 6 years of age with scattered cystic bone lesions but no pigmented spots. The case studied at the Albany Hospital showed bone lesions and skin pigmentation but no precocious puberty. The other 15 cases revealed neither precocious puberty nor abnormal skin pigmentation but have been reported as unilateral osteitis fibrosa, osteodystrophia fibrosa unilateralis, or as polyostotic fibrous dysplasia (Lichtenstein,¹² Jaffe¹³). In this group of 19 cases there are 7 in which fruitless exploration of the neck for parathyroid adenoma was performed. Two operations were performed upon one patient in this series.

It is evident, therefore, that a knowledge of this syndrome is most important in the differential diagnosis of hyperparathyroidism. Here is a condition in which in a total of 51 patients, there have been twenty useless operations, and, furthermore, 4 of these patients were operated upon a second time. Albright's syndrome is certainly the most important condition to be differentiated from hyperparathyroidism, as the record shows confusion arises in 40 per cent of the cases. The syndrome occurs in a complete and incomplete form. The disease starts in early childhood and nearly all victims of the complete type develop symptoms before the age of 10. In the incomplete form, patients may be 30, 40, or older before clinical manifestations appear. The disease is more frequent in females. While the x-ray appearance of the bones may be confusing, it should be emphasized that in Albright's syndrome the lesions are scattered, localized, and multiple, with considerable portions of the skeleton unaffected. This patchy distribution is in sharp contrast to the general decalcification of all osseous tissue found in hyperparathyroidism and osteomalacia and is more like Paget's disease and xanthomatosis. There is a tendency to unilateral involvement. Albright emphasizes three points in the roentgen examination of bones of the patients with this syndrome: (1) there are areas of increased density representing overgrowth of bone as well as decreased density; (2) there are parts of the skeleton that show normal bone; and (3) the epiphyses are rarely if ever involved. Biopsy specimens show osteitis

fibrosa with an absence of osteoclasts except in those cases which are rapidly progressive. In a few instances areas of cartilage have been found in specimens. There is a difference of opinion as to the relative value of the roentgen examination and bone biopsy in the differential diagnosis from hyperparathyroidism. Jaffe feels that the distinction can be made by microscopic examination with unfailing regularity, while Albright believes that the roentgen examination is more dependable. The fact is that confusion has arisen in many instances with both methods of study, and neither can be called infallible. The presence of pigmented skin spots over the sacrum, buttocks, or upper back should at once arouse suspicion. These spots, due to an increase in melanin in the basal layer of the skin, may be so insignificant as not to be noted or they may be hidden by hair in the back of the scalp and neck, so that they are not seen until the part is shaved.

Sexual and somatic precocity are present with great regularity in the female afflicted with the disease and, if accompanied by skin pigmentation or bone lesions, these conditions should call Albright's syndrome to mind. This feature may, however, be absent in the female as well as in the male. Calcium and phosphorus determinations on the blood usually serve to distinguish Albright's syndrome from hyperparathyroidism, but occasionally confusion is caused by the occurrence of a blood calcium above 11 mg., and a blood phosphorus below 3 mg. Balance studies of calcium metabolism regularly show a negative balance with excessive output in the urine in hyperparathyroidism. Only an occasional case of Albright's syndrome shows increased excretion of calcium in the urine. The blood phosphatase level is often elevated, showing increased bone production, but it is not of much differential diagnostic value.

The second disease which may simulate hyperparathyroidism or Albright's syndrome is illustrated by the following case report.

Case Report

C. W. L., an 11-year-old school girl, was seen October 21, 1937. At the age of 6 she had a fall, since which time the right forearm has been bowed. At 8 years an optic nerve tumor was removed. At 10 she suffered a fracture of the left femur as a result of a fall. No sexual precocity was present, as the menses were still absent when she was 11. Examination showed bowing of the right forearm and numerous pigmented spots on the skin, measuring a few to several centimeters in diameter. The urine was negative, the blood count was normal, the blood calcium was 10.8 mg. and the blood phosphorus 6.5 mg. X-ray showed cystic bone changes in the lower ends of each femur. Per-

mission for biopsy of skin and bone was refused. This case was probably an instance of von Recklinghausen's neurofibromatosis. Dr. Albright reviewed the evidence and agreed with this diagnosis. There are still those who believe that Albright's syndrome is nothing more than von Recklinghausen's neurofibromatosis. Against this view is the fact that biopsies of the skin have never shown neurofibromata in Albright's syndrome, while they are always present in sections of the skin taken from von Recklinghausen's neurofibromatosis.

A third case in a 14-year-old boy who was thought to have giant cell sarcoma of the hip, or possibly hyperparathyroidism, was first seen in April, 1940. Since his eighth year he had had pain and disability in the right hip. He was operated upon at that time in another hospital and the tissue removed was diagnosed as giant cell sarcoma. Examination at the present time showed shortening of the right leg and a marked limp in walking. There was an area of brownish pigmentation in the gluteal region. X-ray examination showed cystic bone changes in the right femur, the right tibia and fibula, the first right metacarpal, the right humerus, and the tenth rib on the right side. The only cystic area on the left side was located in the first metatarsal bone. The blood calcium and blood phosphorus levels were normal (calcium, 9.4 mg., and phosphorus, 3.8 mg.). The blood phosphatase was 7.12 Bodansky units, a slight increase.

In addition to the three types of bone disease which have been mentioned—i.e., Albright's syndrome, von Recklinghausen's neurofibromatosis, and giant cell sarcoma—one must consider briefly a number of other conditions in the differential diagnosis of hyperparathyroidism. Paget's disease of bone is to be distinguished by the onset in the later decades of life, by the normal blood calcium and blood phosphorus, by the usually very high phosphatase, by the characteristic woolly appearance of the bones in the x-ray films in some areas, and by the mosaic-like structure of the biopsied bone. Multiple myeloma may cause scattered lesions in the bony skeleton which at first glance suggest hyperparathyroidism. In some cases the blood calcium is definitely elevated. The characteristic features of this condition are usually, however, a normal blood phosphorus, hyperproteinemia with reversal of the albumin/globulin ratio, Bence-Jones protein in the urine, a normal blood phosphatase, plasma cells in bone marrow puncture, and round, punched-out lesions in the skull which, seen by x-ray, are quite suggestive. Osteomalacia with increased calcium excretion and softening of the entire osseous system is a rare disease and occurs with diets deficient in calcium and vitamin D. Repeated pregnancies are the commonest cause, although poor nutrition under war conditions has been reported as "hunger osteomalacia." The serum calcium is normal as a rule, although Albright states that it occasionally may be high because of a secondary parathyroid hyperplasia. The blood phosphorus is normal or low. The

phosphatase may be slightly increased and occasionally markedly elevated. Cystic areas by x-ray are not seen. Adolescent rickets like hyperparathyroidism leads to general demineralization of the skeleton. It occurs at a younger age than hyperparathyroidism and is further differentiated by the normal blood calcium, the normal to low blood phosphorus, the very high phosphatase activity, and the lack of cystic areas in the roentgenograms of the bones. Metastatic cancer involving bones, with hidden primary source, may occasionally show a high blood calcium, but confusion with hyperparathyroidism should not arise. Roentgenograms of the skeleton in cancer will invariably show certain bones which are entirely normal, while in hyperparathyroidism all of the bones are affected to some degree. Senile osteoporosis has been mistaken for hyperparathyroidism but should be differentiated by the normal values for blood calcium, phosphorus, and phosphatase. Multiple hemangiomas of bone, recently described by Pierson, Howard, and Farber,¹⁴ may produce widespread osteolytic lesions of the skeleton but are readily differentiated by biopsy as well as by other features. There are two unilateral lesions of bone which have been confused with Albright's syndrome but which should be easy to distinguish from hyperparathyroidism. These are Ollier's disease, known as unilateral dyschondroplasia, in which multiple enchondromas are limited to one side of the body, and xanthomatosis, a condition characterized by high blood cholesterol

and typical foam cells in the biopsy of affected bone.

In conclusion it may be said that of all the diseases of bone which may resemble hyperparathyroidism, Albright's syndrome is the most important. In a series of 51 published cases of the complete and incomplete variety, no less than 20 have been operated upon without finding an adenoma in the parathyroid and 4 of these patients were subjected to a second futile exploration.

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RED CROSS DRIVE BEGINS MARCH 1

In what is expected to be the greatest philanthropic drive ever conducted in New York City, 100,000 volunteers will begin a house-to-house canvass March 1 to raise funds for the Red Cross. The quota for New York City is \$12,920,700, or 10.3 per cent of the national goal.

Chairman of the local drive is Colby M. Chester, with Walter S. Gifford serving as national chairman.

Officials of the campaign estimate that a minimum of two million contributions will be needed to meet the quota.

ABSTRACT OF MEDICAL ARTICLES BEING SENT TO DOCTORS IN SERVICE

Two projects that are aiding physicians in the armed forces not only to maintain professional competence in matters pertaining to military medicine but also to return to civilian practice at the end of the war armed with the latest knowledge in all fields of medicine, are announced in the *J.A.M.A.* for January 23.

The *Journal* says that: "By cooperation of the editorial staff of the *J.A.M.A.* with the Committee on Information of the Division of Medical Sciences of the National Research Council and the Divisions of Publications of the United States Army and Navy Medical Departments and the United States Public Health Service, a letter is being prepared every two weeks, which is distributed to every officer in these services. . . . The letters consist of from four to

six pages of brief abstracts of articles of significance appearing in the current medical literature.

"By special arrangement also E. R. Squibb and Sons has planned to distribute to officers in the armed forces a publication called *Medical Journal Abstracts*, prepared by the library staff of this company. . . . The company also offers to send *Medical Journal Abstracts* on receipt of a correct APO address to medical officers overseas, subject, of course, to decisions of governmental authorities in charge of postal regulations.

"Certainly these attempts to aid physicians in the armed forces to keep abreast of advances in medical science can result only in improvement in medical service to the men for whose health and medical care they are responsible."—*A.M.A. News*, January 21

SYPHILIS AS A CAUSE OF DELAYED PNEUMONIC RESOLUTION

JOSEPH F. WORTHEN, M.D., and MICHAEL S. RAPP, M.D., Staten Island, New York

THAT syphilis predisposes to the complications of lobar pneumonia, and especially to delayed resolution, has been advanced by Fitz-Hugh¹ and Youmans and Kampmeier.² Others—for example, Weinstein and Goodman,³ who reviewed the records of 509 patients with acute lobar pneumonia, of whom 37.5 per cent had syphilis—did not observe the favorable influence of antiluetic therapy on the course of unresolved pneumonia, as reported by Fitz-Hugh and Youmans and Kampmeier.

We believe that the case we are reporting here was very favorably influenced by antiluetic treatment.

Case Report

E. O., a 40-year-old white man, was admitted on October 20, 1938, to the Staten Island Hospital, complaining of diarrhea of four days' duration.

He stated that except for a "cold in his system" he was in good health until four days before admission, when he developed severe generalized abdominal cramps, followed by diarrhea and vomiting. Stools were yellowish-green, watery, and frequent. During the next three days, weakness and malaise increased, and a dry, short cough, which he had had for three or four months previously, became worse, with production of large amounts of thin, mucoid sputum.

His past history revealed that he had been susceptible to colds for "many years." X-rays of his chest were taken when he was 13 and again when he was 25, and were considered normal. He did not remember why the x-rays had been taken, but thought it was due to a cough he had at the time.

He had contracted syphilis at the age of 25, for which he "received a few injections." He had gonorrhea "two or three times" during his twenties—"easily cured." He was admitted to the hospital in 1936 and 1937 for treatment of a fistula-in-ano. His remaining past medical history is entirely irrelevant. His father died at 25 in the first World War and his mother at 53 of a "stroke."

On admission the temperature was 103.2 F. rectally; pulse rate, 130; respiratory rate, 24; and blood pressure, 120 systolic, and 60 diastolic.

Physical examination showed a poorly nourished and developed, tall, thin, prostrated white man, coughing at frequent intervals and somewhat dyspneic. He complained of pain in the right side of his chest.

The pupils were equal, regular, and reacted to light and accommodation. The tongue was heavily coated, the mouth dry, and the breath foul.

The essential physical pathologic changes were limited to the thorax and consisted of limitation of movement of the right chest; deviation of the trachea to the right; the presence of increased tactile fremitus, dullness, bronchial breathing, increased pectoriloquy, and a few scattered crepitant and small moist rales in the upper half of the right

chest posteriorly and in the right supraclavicular and infraclavicular regions anteriorly.

The apex point of maximal impulse was in the fifth intercostal space, 8 cm. to the left of the midsternal line. The heart sounds seemed normal.

The abdomen, except for slight distension, was normal. The liver, spleen, and kidneys were not palpable.

The admission diagnosis was chronic pulmonary tuberculosis with tuberculous pneumonia, intestinal tuberculosis, and latent syphilis.

On admission, the urine showed a specific gravity of 1.010, a 1 plus reaction for albumin, a few hyaline and granular casts, and a few pus cells. No red blood cells were seen. Hemoglobin was 73 per cent (Sahli); red blood count, 3,780,000; white blood count, 11,500, with 92 per cent neutrophils, 7 per cent lymphocytes, 1 per cent transitional cells, and 39 per cent band forms. Subsequent urinalyses were essentially normal. The hemoglobin ranged from 60 per cent to 66 per cent; the red blood count averaged 3,300,000; the white blood count, 11,500 to 15,260, with 70 per cent to 90 per cent neutrophils and 9 per cent band forms. A transfusion of 500 cc. of citrated blood was given on November 3 and again on November 21.

Sputum examinations for the tubercle bacillus were repeatedly negative. No pneumococci of types I to XXXII were found, but a few chains of streptococci were occasionally seen on smears. Blood cultures were all reported as negative. Stool examination for ova was negative. The Wassermann test was reported by the New York City Health Department as 4 plus.

An x-ray examination of the chest, made on October 28, was reported as showing "increase in density over the upper right lung field; retraction of the trachea to the right; indicative of consolidation, possibly with an old tuberculous lesion in the right apex. The cardiac shadow is markedly enlarged. Neoplasm to be investigated."

During the six days in the hospital, from October 20 to 25, his temperature ranged between 103 and 104 F. in the afternoons, and about to 99 to 100 F. in the mornings. The pulse was between 110 and 140 and the respirations between 24 and 48. The diarrhea disappeared on the fourth hospital day and the patient seemed improved.

Electrocardiographic studies on November 3, 22, and 25 showed paroxysmal auricular tachycardia with no deviation of the electrical axis.

On November 10, x-ray films of the chest showed that "some degree of resolution has taken place in the right lung, especially at the apex. The cardiac shadow appears smaller. The mediastinum is retracted to the affected side. Diagnosis: old fibrotic tuberculosis with superimposed pneumonia."

The patient continued acutely ill with productive cough, sweats, and right-sided chest pain. His fistula-in-ano was discharging freely and the dyspnea at night was difficult to manage.

For ten days after admission, from November 1 until November 10, he was given mercuric chloride, $\frac{1}{4}$ grain, and potassium iodide, 10 grains, three times a day, after meals. From November 10 until his discharge from the hospital on December 24 he was given 2 cc. of bismuth subsalicylate

Attending Physician and House Physician, respectively, of the Staten Island Hospital.

intramuscularly, twice the first week and once weekly thereafter.

From November 15 to 22 he received prontylin, getting 60 grains the first day, 45 grains the second day, and 30 grains daily for the next five days. No appreciable changes occurred except for a slight drop in the temperature.

X-ray films of the chest on November 18 showed no change over the previous report of November 10. The temperature in the second week, starting October 27, dropped to 101 F. and ranged between 97 and 101 F. until November 10, when it rose to a range of 100 to 102 F., with the pulse between 100 and 120 and respirations between 25 and 35. On November 24, the temperature dropped slightly, ranging between 99 and 101.4 F., with the pulse 110 to 120 and respiration 25 to 30. In the following week, the temperature, pulse, and respirations dropped, by slow lysis, until December 1, when they became normal and remained so until his discharge three weeks later.

During this time the patient's clinical condition improved slightly; his cough and chest pain persisted, however, and on November 25, he developed edema of the face and lower extremities. Digitalis therapy was instituted, with a rapid response, the edema completely subsiding in two days.

X-ray films of the chest on November 25 showed no change in the pulmonary picture over previous films taken, but x-rays taken December 8, revealed "marked resolution of the right upper lung field."

The patient had received, prior to this picture, five injections of bismuth over a period of four weeks, and for ten days before bismuth therapy was instituted he had received a total dosage of a $1\frac{1}{2}$ grain of mercuric chloride plus 300 grains of potassium iodide.

Despite a week of normal temperature and resolution as revealed by x-ray and physical examination, the patient's response was slow and unsatisfactory.

He continued to have severe chest pain, at times requiring morphine. On December 9, bronchoscopy was performed and it was reported that "the right upper lobe bronchus was dilated slightly and from its mouth was discharging whitish mucopurulent material containing several small, black, solid masses. These were aspirated."

Laboratory examination of this material showed no pus cells or organisms, however, and culture of the material grew only *Micrococcus tetragenus*.

Thereafter he improved rapidly. The cough disappeared, as did his chest pain, and he was discharged December 24, nine weeks after admission. X-ray on the day of discharge showed "lungs normal." The last week in the hospital on December 21, he received his first injection of neoarsphenamine intravenously, and since discharge he has been receiving intensive antiluetic therapy.

On the last visit, the patient stated that he feels fine, has gained considerable weight, has no cough, and works daily without fatigue.

Syphilis today is so often taken for granted that one is apt to neglect taking a specimen for a Wassermann test or to disregard the significance of a positive test in just such a case as the one we have reported.

In all cases of delayed resolution a Wassermann should be done, and if it is found to be positive, antiluetic treatment should be promptly instituted.

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3. Weinstein, A., and Goodman, M.: *Am. J. M. Sc.* 188: 716 (Nov.) 1934.

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THE CONSERVATIVE MANAGEMENT OF OBSTETRIC PATIENTS PRESENTING PREMATURE RUPTURE OF THE FETAL MEMBRANES

BERNARD J. PISANI, M.D., New York City

IN READING the literature, one is confronted by conflicting reports about the effect of the premature rupture of the fetal membranes. Dry labor was always considered to be an unfavorable complication of pregnancy. The loss of the fluid wedge was believed to be the cause of dystocia and to have an undesirable effect upon both patient and infant. In more recent years, many obstetricians have felt that premature rupture of the fetal membranes is not so very great a hazard. Some claim that in many cases it may even shorten labor rather than prolong it. The object of this presentation is to discuss the results obtained in the conservative management of pregnant women entering the hospital with this complication.

Since 1934 a policy of definite conservatism has been pursued at Bellevue Hospital, and very satisfactory results have been obtained from the standpoint both of the mother and the fetus. In carrying out the management of such cases the following points are emphasized: A careful history and a thorough physical examination are performed. Once the history of rupture of the membranes has been obtained, no rectal or vaginal examinations are done, the patient not yet being in active labor. Careful palpation of the fetus for position and presentation is very important. A routine sterile preparation of the perineum is carried out, but no enemas are ordered. The patient is instructed at this time about the dangers of infection and is advised concerning touching of the genitalia, cleansing of the anal region after bowel evacuations, and warned against other possible sources of contamination. An inspection of the vulva is carried out to verify the presence of ruptured membranes. Freely flowing amniotic fluid with its characteristic odor, a shred of membranes, positive indicator tests, and the recovery of lanugo hair upon microscopic examination of the escaping fluid are all methods of assistance in making the positive diagnosis.

The woman is then kept at complete bed rest until the onset of labor. She is transferred to the ward where pulse and temperature recordings are made every four hours. If there is any suggestion of an abnormal position or presentation, of disproportion, or of any pelvic irregularity, the patient is subjected to x-ray study. The policy of careful waiting is carried out until

the woman spontaneously goes into labor. This method is in direct variance with that of many obstetricians who believe in active treatment of such a condition. Members of that school of thought may—and I quote—“... take no active steps until the membranes have been ruptured twenty-four hours. If at the end of that time labor has not begun, we administer castor oil and a soapsuds enema. Uterine contractions usually supervene. If they do not, we occasionally give small doses of pituitary extract. If labor has not begun following this treatment at the end of another day, we insert a Voorhees bag into the cervix.”¹

The reasons for this treatment were the fear of infection in the ruptured amniotic sac because of its proximity to a region harboring organisms—i.e., the cervix and vagina—and the difficulties attendant upon a dry labor. Because of these potential hazards, it was felt that the safest treatment consisted in the rapid emptying of the uterus. However, a safe method of emptying a uterus in the last trimester of pregnancy, especially in the presence of an unfavorable cervix, has not as yet been discovered. The cervix is often long and thick when early premature rupture of membranes occurs, and induction of labor is accompanied by inertia and dystocia. Radical treatment will frequently cause an infection of the amniotic sac. Constitutional reaction to this develops rapidly, and fetal death *in utero* is not uncommon.

Part of the rationale behind the conservative management lies in the avoidance of infection by abstaining from any active manipulation. In the absence of rectal or vaginal examinations, the flora of the vagina is not disturbed, and these organisms are not introduced mechanically into the cervical canal or into the amniotic cavity. In any rectal examination the smearing of the posterior vaginal wall over the cervical os must serve to introduce infection. On the other hand, escaping amniotic fluid probably acts as a cleansing cervical douche until the patient goes into labor. The perineal preparation and the instructions as to cleanliness that are given to the patient aid in decreasing the chances of contamination.

The early recognition of abnormalities by careful palpation and their further study by x-ray serve to prevent complications. Malpositions such as breech, transverse, and compound pres-

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

¹ Irving, Dr. F. C.: *A Textbook of Obstetrics*, New York, Macmillan, 1936, page 358.

intramuscularly, twice the first week and once weekly thereafter.

From November 15 to 22 he received prontosil, getting 60 grains the first day, 45 grains the second day, and 30 grains daily for the next five days. No appreciable changes occurred except for a slight drop in the temperature.

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TABLE 3.—MORBIDITY RATES—BELLEVUE HOSPITAL

Premature Series	All Obstetric Cases— 1940
100.0'—16 or 29.1%	17.2%
100.4'—10 or 20.8%	10.9%
101.0'—8 or 16.6%	6.4%

give rise to general septicemia or peritonitis. This plays a considerable part in the production of late fetal mortality.

We have attempted to segregate the cases of prolonged rupture of fetal membranes that have occurred at Bellevue Hospital since 1936. Only those patients known to have had ruptured membranes for a period longer than ninety-six hours, or four days, have been studied. It was found that premature rupture of the membranes occurred 48 times in 4,341 patients delivered. Many cases were found in which premature rupture occurred two or three days before the onset of labor, but this group was not analyzed. Of these 48 women 30 were multipara and 18 primipara. The time of gestation at which the rupture usually took place was within two weeks of the estimated date of confinement, averaging 8.3 months. In our series the duration of rupture membranes prior to the onset of labor averaged 7.7 days. It is interesting that 87 per cent of these patients were delivered normally; the rest were delivered by various operative procedures. The duration of labor for the entire group averaged 12.7 hours. However, the average duration of labor in the primipara was 12½ hours longer than that of the multiparous patient (21½ hours to 8 hours). The average hospital stay was 19.6 days.

Cause.—Many theories have been advanced to explain the cause of premature rupture of the membranes—large babies, hydramnios, twins, abnormal presentations, deformed pelvis, syphilis, and frequently trauma. Abnormal presentations were slightly more common in this series, but this may have been owing to accompanying complications such as contracted pelvis. In Table 1 the incidence of LOP positions is strikingly evident.

Deformities of the pelvis were present in several cases of our series. These varied from small gynecoid to true android types. There was no single predominant type of abnormal pelvis. Table 2 lists the principal complications that were found. A few others were present but are not included in this list because they occurred infrequently and probably have no relationship to the premature rupture of the membranes. It should also be noted that several patients had more than one complication.

Mortality.—In this series one maternal death occurred. This gives a maternal mortality of

TABLE 4.—TYPES OF DELIVERIES

Spontaneous vertex	40—87%
Forceps deliveries	4—8.7%
Low forceps—1	
Mid forceps—3	
Breech deliveries	2—4.3%

2.1 per cent. The death was a multipara transferred from the TBC service with far advanced tuberculosis. She delivered a premature baby (4 pounds 8 ounces) on April 8, 1939, developed phlebitis, and died on May 8, 1939, of pulmonary tuberculosis.

Five of the forty-six babies delivered died, thus making the fetal mortality 8.7 per cent. Of the total number of infants delivered 30 per cent were premature. Two were macerated stillbirths, while three were living, nonviable fetuses weighing less than 2 pounds, all of whom expired shortly after birth.

Morbidity.—Twelve of the morbid patients had normal spontaneous deliveries. The remaining 4 had forceps deliveries. Comparison of the series with the average morbidity rate of the Bellevue Obstetrical Service reveals a marked increase in all three standards, as seen in Table 3.

Type of Delivery.—Of the entire series, 87 per cent, or 40 cases, were delivered spontaneously; 8.7 per cent, or 4 cases, required forceps; and 4.35 per cent, or 2 cases, were breech (see Table 4).

Miscellaneous Notations.—Twelve patients in the series ran intermittent temperatures of 100 F. during their latent period in the hospital. Four of this group gave the history of vaginal examinations by their doctor prior to admission. Six of the group of 12 cases had a morbid course postpartum. A like number (6) had frank infection of the amniotic contents, with foul-smelling fluid escaping from the vagina. This developed during labor and is probably related to the alternate descent and ascent of the presenting part in the contaminated and dilating cervix.

A history of secondary rupture occurring at the time of delivery was obtained from doctors' notes on charts in 7 instances. A series of 8 episiotomies was done, 2 of these disrupting and requiring secondary repair. Such wound infection may well be related to infection of the amniotic sac. There were no cesarean sections.

For obstetric indications, and not because of the ruptured membranes, medical induction of labor was attempted in 7 cases with castor oil and quinine plus enema. Labor ensued in 3, but no effect occurred in the others. No pituitrin was employed in this group. The longest recorded labor was fifty-six hours, and the shortest was one hour in a multipara who had a nonviable infant. Antepartum medication in 7 cases was

TABLE 1—CAUSES OF PREMATURE RUPTURE OF THE FETAL MEMBRANES

Presentations	Percentage in Series	Normal
Cephalic	92%	95%
ROA	19 3	20
ROP	16 5	17
LOA	40 2	60
LOP	24 0	3
Breech	8%	4%
Transverse	0	1%

TABLE 2—COMPLICATIONS IN CASES HAVING PREMATURE RUPTURE OF FETAL MEMBRANES

Anemia	29 cases
Deformities of pelvis	17 cases
Obesity	10 cases
Antenatal bleeding	4 cases
Pyelitis	3 cases
Pre-eclampsia	3 cases
Syphilis	2 cases
Transverse arrest	2 cases
Thrombophlebitis	2 cases
Hydramnios	1 cases

entations, and cephalo-pelvic disproportion are, in many instances, accompanied by premature rupture of the membranes. Labor is usually protracted in these patients because of the abnormality which brought about the rupture of the membranes in the first place, and not, as many think, because of the premature loss of fluid. This fact is attested to by the low incidence of uterine inertia in large series of cases where for medical reasons labor has been successfully induced by artificial rupture of the membranes. Consequently, we may reasonably conclude that premature rupture is not necessarily the cause of protracted labor.

The diagnosis of primary rupture of the membranes, while usually easy, may sometimes be difficult to make. Occasionally there may be a slight rupture in both layers of the fetal membranes high up in the uterus, resulting in the escape of a small amount of fluid. In these cases the opening may heal spontaneously and the flow of fluid cease. There may also be a separation between the amnion and the chorion with an accumulation of fluid between the two layers, which may be followed by a rupture of the chorion and the escape of this fluid. Most often, however, primary rupture of the membranes is confused with the involuntary escape of urine resulting from pressure of the presenting part on the bladder or weakness of the urethral sphincter. Whenever the diagnosis is doubtful, the patient may be given methylene blue. A green stain in the fluid escaping is due to the dye excreted in the urine. A specimen of the fluid may be obtained with a wire loop and examined microscopically for lanugo hairs. Indicator tests based upon the presence of the alkaline reaction of amniotic fluid have been used. Pressure upward on the fetal pole will sometimes result in the escape of more fluid if the membranes have been ruptured. There is also the rare condition of hydrorrhea gravidarum, but we have no reported case of this type in our series.

Bed rest helps to prevent complications. Prolapse of the cord is less likely to occur; the loss of fluid will not be as great, thus preventing a truly dry uterus, and rest may aid in the healing of so-called "high leaks," if such a closure of the membranes is possible. Elevations of tempera-

ture are the first signs of sac invasion, and these should be carefully recorded. We have found that the woman with ruptured membranes should seek immediate hospitalization to avoid complications. The conservative method of treatment is also of value to the fetus and aids in reducing fetal mortality, because it prolongs the period of intrauterine life. One of our cases had ruptured membranes at the twenty-fifth week and carried on to thirty-four weeks, delivering a healthy premature infant weighing four pounds fourteen ounces. It is the thought of some pediatricians that fetal existence in a disturbed media may add to the powers of the premature child to survive.

Prior to considering our statistical findings, it is of value to mention the dangers of ruptured membranes, both maternal and fetal. In the case of the mother, spreading infection is most to be feared. An intrauterine infection of the amniotic sac when neglected may cause a myometritis, a severe parametritis, or more distant complications. Premature rupture of the membranes is often accompanied by premature labor, and the latter may be long in duration, depending upon the state of the cervix and the absence of a fluid wedge. Placental separation may occur. The absence of the hydrostatic bag may cause trauma to the cervix if the labor is strong and the expulsive forces powerful.

The dangers to the fetus are the incidence of prematurity, the loss of the protective cushion causing direct force upon the fetal skull, and an increase in the possibility of prolapse of the cord—frank or occult. The infection of the sac may have important effects on the fetus. Even when the mother escapes infection, it has long been known that in such cases the child, which is born alive, may succumb a few days later. Many have thought the baby may have become infected by swallowing the contaminated amniotic fluid. Direct growth of organisms takes place in the lungs in the presence of increased aspiration. Slemons and other workers have shown that in a certain proportion of cases the bacteria make their way through the amnion covering the fetal surface of the placenta, and, after invading the large vessels which lie just beneath it, gain access to the fetal circulation and

Therapeutics

CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the April 1 issue and will concern "Treatment of Some Common Diseases of the Eye"

Recent Advances in Sulfonamide Therapy

DR. DAVID P. BARR: We are to consider this morning the recent advances in sulfonamide therapy. The conference will be opened by Dr. Plummer.

DR. NORMAN PLUMMER: Since I reported to you a year ago at this conference on the status of sulfonamide therapy, there have been no outstanding discoveries in this field. However, there has been assembled much additional significant information. No really new sulfonamides have been described. No new theories on the sulfonamide action have been promulgated. No new uses of these drugs have been found, and no new toxic reactions have been reported. Nevertheless, those of us who are active in this field now feel very much more satisfied and secure in the use of these drugs. We have a clearer notion of the sulfonamide action. Even a year ago we were timid in almost every case that we treated, fearing some new reaction or development. In the beginning, when sulfapyridine first showed such miraculous recoveries in pneumonia, we were afraid that it was all a dream and that the results would not continue. Now, we are beyond that uncertainty, and we are developing accurate base lines for the uses and the untoward reactions of these drugs.

Although during the past year no distinctly new derivatives have been described, those preparations that already had been reported have been used in modified forms. Succinyl sulfathiazole, which has been given the trade name "sulfasuxidine," has been tried particularly in infections of the intestinal tract. This derivative of sulfathiazole is inert and in itself has no therapeutic value. However, it is broken down slowly to sulfathiazole in the intestinal tract and gives a method of depositing sulfathiazole in high concentration in the colon. Because sulfathiazole is only slightly absorbed from the colon, the blood and urine concentrations remain low as compared with those following the administration of sulfathiazole by the

usual methods, and consequently the danger of toxic reaction is much less. During the past year here and elsewhere, succinyl sulfathiazole has had a considerable trial in patients with colitis, both the chronic ulcerative and the acute forms, and it has been used both pre- and post-operatively, particularly in surgery on the large bowel. The high local concentration of sulfathiazole and the very low toxicity have been demonstrated clinically. Some investigators have been impressed by changes brought about in the intestinal flora. The clinical effect in chronic ulcerative colitis has not been impressive. The results in the acute diarrheas and in the surgical cases have not been fully appraised, and it is questionable whether they are any better than when the usual sulfathiazole or sulfadiazine is administered orally or the sodium salts are given parenterally.

In this country succinyl sulfathiazole—and the same may be said for sulfaguanidine—up to the present time has not given the results predicted on the basis of early experimental studies. However, these drugs may have great value in the war, particularly in desert countries where a chronic state of dehydration is almost universal. Under these conditions the usual sulfonamides, even in small dosage such as that recommended for prophylactic use, may be too dangerous. On the other hand, under such circumstances sulfaguanidine or succinyl sulfathiazole not only may be comparatively safe but, at the same time, highly effective.

Sulfadiazine, just as sulfathiazole, has been modified in various ways, with the hope that the resulting preparations would have new or greater actions. A slightly different drug has been created from sulfadiazine by linking an isomer of pyrimidine to the effective para-amino-benzene-sulfonamide group. This has been given the name of sulfapyrazine, and its clinical trial, particularly in pneumonia, now has been reported. The number of cases treated is not sufficient for final conclusions.

pantopon and scopolamine, while 2 were given sodium amytal. The remainder had no medication during labor.

Several suggestions present themselves after review of this series of cases. The incidence of low forceps cases seems very small when we consider that 30 per cent of the babies were premature. Possibly low forceps delivery might aid in the presence of resistant soft parts in lowering fetal mortality. The need of a positive and reliable test for the demonstration of ruptured membranes is obvious. The careful examination of the placenta and membranes after delivery may help in studying these complications. The custom of taking cultures, at the time of delivery, from the maternal vagina and cervix and the fetal oral and nasal cavities may aid in studying the morbidity of the mother and fetus. Proper use of uterine stimulants, castor oil, enemas, or pituitrin in minute doses after the onset of labor may aid in shortening the duration of labor as well as changing the type of labor, if obstetric complications such as disproportion or prematurity are ruled out before such adjuncts are employed.

Conclusions

1. Conservative management of the patient presenting premature rupture of fetal mem-

branes in the absence of labor is a safe procedure and its results warrant further study with the same method of treatment.

2. While fetal and maternal morbidity are greater than in the normal obstetric case, our results are better than those obtained with active methods of treatment in similar cases of ruptured membranes.

3. The danger of vaginal manipulation is apparent, in that 38 per cent of the morbid cases had at least one pelvic or rectal examination prior to entering the hospital.

4. The incidence of operative deliveries is much lower than with active methods of treatment.

5. Induction of labor was employed in only about 10 per cent of the cases, and for obstetric indications rather than because of the ruptured membranes.

6. More frequent use of low forceps in delivering the premature infant in the presence of resistant soft parts may reduce the fetal mortality.

7. Morbidity and mortality may be reduced by the free use of cultures to determine the type of invading organism and by the early administration of chemotherapy to fight infection.

REFRESHER COURSE AT ILLINOIS

A clinical course in laryngology, rhinology, and otology has been arranged by the University of Illinois College of Medicine for ear, nose, and throat specialists who are able to devote only a brief period to postgraduate study. The course will be given from March 22 to March 27.

Applicants should write to the Department of Oto-Laryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago. In his letter the applicant must state his school, the date of his graduation, and details concerning his specialty training and experience. Registration is limited.

RHEUMATISM ASSOCIATION FOUNDED

The formal organization of the New York Rheumatism Association took place January 22 in New York City. The object of the new society will be to unite all local physicians who are interested in arthritis and rheumatic disorders in an attempt to improve the treatment of patients with arthritis, particularly those seen in arthritis clinics in Greater New York.

Officers elected at the first meeting include Dr. Russell L. Cecil, president; Dr. Martin H. Dawson, vice-president; and Dr. Edward F. Hartung, secretary-treasurer.

VOLUNTEER HEALTH ASSISTANTS NEEDED

An urgent request for 1,500 more women to enroll as Volunteer Health Assistants has been made by Health Commissioner Ernest L. Stebbins. All women between the ages of 20 and 45 may register for the work, which offers an opportunity to serve in a worth-while war effort and also to learn much about the field of public health nursing.

The Civilian Defense Volunteer Office is cooperating with Commissioner Stebbins in the drive for

volunteers, and registrations will be accepted at all neighborhood Civilian Defense Volunteer Offices.

The need is acute at present because so many trained volunteers must be ready to fill the vacancies left by public health nurses who are going into the armed services. A number of volunteers are already engaged in nontechnical work in child health stations, schools, and clinics.

sulfapyridine, then after sulfathiazole, and has been found to be the most frequent reaction following sulfadiazine. It may develop as early as the second day of therapy. Its occurrence is not definitely attributable to the size of the dosage or the level of the drug in the blood, to the fluid intake, to the reaction of the urine, or to a diminished renal function. Although each of these factors seems to exert some influence, there appears to be in addition some other factor unknown at the present time.

Shortly after renal symptoms were found to occur following the use of sulfapyridine, pathologic and experimental studies revealed that this drug and its acetyl derivative precipitated out in the urinary tract. In the case of sulfapyridine, this precipitation was thought to occur chiefly in the renal pelvis and ureters and to a lesser extent in the tubules. Following sulfathiazole and sulfadiazine, the renal reactions are not so common as after sulfapyridine. With all the more insoluble sulfonamides, however, there is a likelihood of involvement of the tubules and the glomeruli, and even some perivascular changes. At the present time there is little evidence that the sulfonamides, in the usual dosage, produce permanent injury to the kidneys. But this is one point that needs further study.

I should like to continue the discussion of this phase of the subject if there were time for it because I consider a knowledge of toxic reactions to be the basis of sulfonamide therapy.

Sulfadiazine has already been accepted by the Council of Pharmacy and Chemistry of the American Medical Association for the treatment of pneumococcal, Friedlander's bacillus, staphylococcal, gonococcal, hemolytic streptococcal, meningococcal, and urinary infections due to *Escherichia coli* and also aerobacter aerogenes.

In addition, there are a number of infections in which the sulfonamides have questionable value, and in these sulfadiazine seems to be as effective as the other sulfonamides.

There remains a formidable list of infections apparently not affected by the sulfonamides, and in these if a trial of sulfonamide therapy seems warranted, we think sulfadiazine may be used except in the infections of the intestinal tract in which there are indications for a trial of succinyl sulfathiazole or sulfaguanidine.

Chief among sulfonamide-resistant infections caused by bacteria are tuberculosis, diphtheria, typhoid and paratyphoid, and tularemia. Diseases caused by the Treponemata, fungi, and protozoan parasites are slightly, if at all, affected. Then there is the large group that we are so greatly concerned with today—the rickettsial and the virus infections. There is a question

whether any of these are benefited by the sulfonamides. It is true that encouraging results have been reported for trachoma and lymphogranuloma venereum, but even in these diseases there is doubt as to the effect on the initial virus infection. It may be only the secondary infections, so common in these conditions, that are altered.

I hope that when Dr. Cattell speaks he will tell us why the virus diseases as a group do not respond to the sulfonamides when many different bacteria are so positively affected.

There are many other developments in sulfonamide therapy that I should like to describe to you, such as our own and other studies on the control of the secondary infections following colds, and the excellent work being done on our surgical service and elsewhere in the treatment of burns and infected wounds with a variety of sulfonamide compounds, such as the sulfathiazole and sulfadiazine ointments; triethanolamine and sulfadiazine, which is applied as a spray; or the new "sulfa film" being used by Dr. Dingwall on our surgical service, which is applied either like adhesive tape or like vaseline gauze. However, our time is short, so I shall present just one other interesting phase of this subject.

That is the use of very high dosage of the sulfonamides in the treatment of some of the resistant conditions. All of our knowledge of high-dosage therapy, with high blood concentrations, has come since the introduction of sulfadiazine, principally because with sulfapyridine and sulfathiazole it was impossible to procure high levels because of their severe toxic reactions and poor absorption.

Shortly after we began to use sulfadiazine, we—and I should give Dr. Charles Wheeler credit for this—increased the dosage, and in a few cases maintained blood levels for several days between 25 and 50 mg. per cent. Fortunately none of these patients showed any severe reaction, but the responses were not particularly encouraging.

In a recent number of the *Journal of the American Medical Association*, Dr. George Dick of Chicago reported a case of subacute bacterial endocarditis in which at the start of therapy a single dose of 40 Gm. of sodium sulfadiazine was given intravenously. The blood level following this injection was 89 mg. per cent free and 90 mg. per cent total. Two hours later vomiting and abdominal cramps occurred. The urine output dropped to 215 cc. on the second day after the treatment, and it was seven days before it gradually returned to a normal amount. The blood urea nitrogen, which was normal at the start, rose in a week to 93.7

There is a strong indication that this closely related preparation will be almost the same as sulfadiazine. Apparently it has the same protective value and low toxicity. The reported protocols suggest that it is excreted slightly more slowly than sulfadiazine even though at the same time the blood levels seem to be somewhat lower.

Another sulfadiazine derivative that has been given clinical trial is sulfamethazine or sulfamethylthiazine. Shortly after the introduction of sulfadiazine, we were tempted to use this preparation. However, just at that time we and other persons were observing cases of serious peripheral neuropathy following the use of sulfamethylthiazole. Recently, in the English literature the use of this drug has been reported in a small number of pneumonia cases and also in a few patients with meningococcal meningitis and gonorrhea. It apparently has a good protective action and, because it is more soluble than sulfadiazine, the likelihood of renal damage is probably less. In this series a low incidence of toxic reactions is reported, and no cases of peripheral neuropathy or renal reaction are included.

Sulfadiazine now has had a very wide clinical usage, and it has maintained most of the advantages that originally were described for it. The uniform absorption, high blood concentration, and low acetylation have given it a decided superiority over sulfapyridine or sulfathiazole. While the incidence of toxic reactions after sulfadiazine is not so low as it was first thought to be, it is, nevertheless, lower than it is for any of the other sulfonamides, and probably for this reason more than any other this drug is becoming the sulfonamide of choice in almost every condition. Sulfapyridine is being used less and less. We find no indication for it except in an occasional case such as one of subacute bacterial endocarditis or pneumococcal meningitis, in which sulfadiazine has failed. However, I know of no such case in which a recovery occurred after sulfapyridine. Sulfanilamide, orally, also is being used infrequently. Even in cases of hemolytic streptococcal infection, sulfadiazine is more effective and more safely administered.

Sulfathiazole is still used commonly, but principally because of economy. It is more easily prepared and consequently the price is much lower than that of sulfadiazine, although now the difference is not nearly so great as it has been. Today the druggist is paying 80 cents for 100 sulfathiazole tablets and \$2.55 for sulfadiazine. In other words, at wholesale prices it would cost about 40 cents to treat a pneumonia patient with sulfathiazole and \$1.25

with sulfadiazine. Sulfathiazole has a slight experimental advantage over sulfadiazine. The in vitro studies show sulfathiazole to have a slightly stronger bacteriostatic action. According to these studies, the sulfonamides are now rated in the following order: sulfathiazole, sulfadiazine, sulfapyridine, sulfanilamide. The values depend upon concentration. It is true that after sulfadiazine administration, the blood and tissue levels are higher and more uniform than those of sulfathiazole, and this probably more than offsets the differences in bacteriostatic values.

I mentioned the fact that the low incidence of toxic reactions is the chief asset of sulfadiazine. Recently Dr. Wheeler and I assembled the sulfadiazine cases treated at the New York Hospital. We were interested particularly in the incidence of untoward reactions that followed the dosage recommended for the severe infections—namely, 2 or 4 Gm. initially, and then 1 Gm. every four hours.

TABLE.—TOXIC REACTIONS FOLLOWING SULFADIAZINE
912 Cases Having an Initial Dose of 2 or 4 Gm. and Then
1 Gm. Every Four Hours

Renal reaction alone	30
Renal reaction and drug fever	2
Renal reaction and drug rash	1
Drug rash alone	16
Drug rash and stomatitis	1
Drug rash and leukopenia	1
Drug fever alone	3
Nausea and vomiting	5
Changes in white blood cell count (leukopenia)	12
Agranulocytosis	0
Hemolytic anemia	0
Thrombocytopenia	1*
Stomatitis	1
Hepatitis	0
Conjunctivitis	1
Headache and vertigo	1
Total	75

* Fatal case.

From the above table on toxic reactions it should be emphasized that fatalities may result from the use of sulfadiazine, although if it is properly administered they occur very infrequently. The renal reaction is the most common and one of the most serious reactions. Nausea and vomiting and drug fever are very uncommon after sulfadiazine. In our series, almost 1,000 patients were treated with sulfadiazine, with no instance of hemolytic anemia or granulocytopenia, but this does not mean that these serious reactions never occur. It is most encouraging that 92 per cent of the patients can take the full dosage of sulfadiazine without any manifestation of toxicity.

The renal reactions as caused by sulfadiazine are manifested by abdominal or renal pain, gross or microscopic hematuria, oliguria or anuria, or nitrogen or sulfonamide retention in the blood. This type of reaction was observed first after

the same place in the enzyme system. However, the sulfonamides cannot serve the metabolic needs, and the substitution blocks the reaction and thus interferes with some essential cellular function. One of the difficulties with this theory is the relatively enormous quantity of sulfonamide necessary to neutralize the effects of the extremely small amount of para-amino-benzoic acid naturally present. Experimentally it has been shown that 1 part of the acid is equivalent to approximately 23,000 parts of the sulfonamides, denoting a corresponding difference in the affinity of these two substances in the reaction—a large but not impossible ratio of effectiveness.

Recently Harris and Kohn through a series of interesting experiments have brought strong support to the theory that the effect of the sulfonamides is due to interference with the synthesis of essential materials rather than to a direct action on the oxidation mechanisms. They tried the effects of all the commonly available amino acids and various other substances concerned in bacterial metabolism. Of these, other than *p*-amino-benzoic acid, only methionine inhibited the bacteriostatic action of the sulfonamides. This suggests that the action of sulfonamides is dependent upon the inhibition of an essential metabolic process involving methionine.

However, this is apparently not the whole story, since evidence has been accumulating which points to an influence of the sulfonamides on bacterial toxins. The most recent study is that of Hutner and Zahl in relation to the toxin of *Salmonella typhimurium*, which is fatal to mice. They observed that 20 mg. of sulfonamide given orally protect against many fatal doses of the toxin. This effect was largely neutralized by para-amino-benzoic acid, suggesting that sulfanilamide and para-amino-benzoic acid compete for the enzymes concerned in detoxification in a manner comparable to that described for bacteriostasis.

From a chemical standpoint sulfanilamide has a relatively simple structure—para-amino-benzene sulfonamide. Numerous synthetic modifications have been prepared by the chemist, and a large number of these are under investigation.

Since the recent discovery that the more complex azo dyes owe their activity to the liberation of sulfanilamide in the body, investigation has centered around this substance, and many derivatives have been prepared by the chemist. As a result we have accumulated a certain amount of information regarding the relationship of structure to activity in this group. It is a subject of great interest, but

here I can mention only a few of the more important factors:

1. The sulfonamide group ($-\text{SO}_2\text{NH}_2$) is inactive apart from the benzene ring to which it must be directly attached. However, the sulfonamide group is not essential, but rather the sulfur, which may be variously grouped, so long as it is linked to the benzene ring in the para position.

2. The amino group in the para position is important. If it is shifted to another position or another group is substituted there is a marked reduction in potency.

3. The addition of other groups to the sulfanilamide ring reduces potency.

4. Substitution in the sulfonamide group may modify the characteristics of the compound, but in many cases the antibacterial activity is retained or even enhanced.

All the commonly used compounds including sulfapyridine, sulfathiazole, sulfadiazine, and sulfaguanidine are of this character ($-\text{SO}_2\text{H.R.}$).

These various compounds differ among themselves both in regard to their physical and chemical characteristics and in their effectiveness as therapeutic agents. These properties determine both the choice of preparations and the details of administration. The more important considerations having a bearing on therapy are:

1. Effectiveness in relation to infecting organism (specificity).
2. Frequency and character of side actions.
3. Rate of absorption and elimination.
4. Solubility and pH of solutions.
5. Distribution in the body.
6. Rate and extent of acetylation.

Time does not permit the discussion of these very important aspects of the pharmacology of the sulfonamides. The differences between the various members of the group are quantitative rather than qualitative. However, their importance must be emphasized because they are the foundations upon which rational therapy must be built.

From a practical standpoint the question of toxicity is always a prime consideration. Various untoward symptoms are fairly commonly observed from all the sulfonamides. Unfortunately we know very little about the mechanism of these side actions, and we have no answer to the question of why under apparently similar conditions they occur in one patient and not in another. Experimental pharmacology has contributed very little. The lethal dose for these compounds in mice, dogs, and other animals, has, of course, been determined and their relative toxicity is known. But as I mentioned earlier, from a pharmacologic standpoint the sulfonamides are relatively inactive, and doses far in

ing, per cent and then gradually fell to normal. Ten days after the single dose, the blood sulfadiazine levels were 3.1 mg. per cent free, and 9 mg. per cent total. However, the temperature showed improvement and the blood culture was always sterile after the one treatment. When the patient's oliguria and nitrogen and sulfonamide retention had subsided, a short course of intravenous sodium sulfadiazine was given, during which the free sulfadiazine in the blood rose to 39.9 mg. per cent. This time there was no oliguria nor nitrogen retention. Dr. Dick reported this case six weeks after the massive dose was given, at which time there was no evidence of active endocarditis and none of permanent renal damage.

This case shows the great hazards of sulfadiazine in high dosage, for it was remarkable that the patient recovered from such a severe renal shut-down. On the other hand, it shows a remarkable therapeutic effect, and perhaps opens a new type of therapy.

The question that occurs to us who have followed a number of these cases is whether the high dosage was really necessary. It is our impression at the present time that from 5 to 10 per cent of the patients with subacute bacterial endocarditis show an arrest in the infectious process following the sulfonamides, but that it does not make a great deal of difference as to which of the sulfonamides is used, whether heparin is also given, or whether the drug is used in high dosage.

DR. BARR: Dr. Cattell will continue the discussion.

DR. McKEEN CATTELL: In reviewing the pharmacology of the sulfonamides I shall not cover the ground systematically, but shall confine my discussion to a few points of theoretic and practical interest.

The pharmacologist first of all wants to know how a drug acts. Through what mechanism are the observed effects brought about? In the case of the sulfonamides we are dealing with drugs which, in the mammalian organism, are almost inert, and thus differ from the general run of therapeutic agents. They have no specific action on any structure nor can they be characterized by any known influence on metabolic processes. However, when large doses are given to animals, toxic effects do, of course, occur, and these may be lethal. I shall return to this topic in a moment.

From a therapeutic standpoint, it is the action of the sulfonamides on the invading organism which is of prime interest. The usefulness of these substances as therapeutic agents is dependent upon their property of combating infections without injury to the host. Our

early views on sulfonamide action were dominated by those of the German and French investigators who did not regard the sulfonamides as antiseptics in the ordinary sense, but postulated that the action on bacteria was indirect and in some unspecified way required the cooperation of the body as a whole. This misconception doubtless had its origin in the fact that the prontosils were the first to be studied. These complex azo dyes are inactive *in vitro* but are reduced to sulfanilamide in the body. We now know that the sulfonamides exert a definite bacteriostatic action in concentrations corresponding to those occurring in the blood stream during therapy.

Thus our interest has shifted to the elucidation of the mechanism of action on the bacterial cell. Studies on the influence of these drugs on various aspects of metabolism are being actively pursued, any many theories have been advanced. These I cannot review at this time, but I should like to touch upon one recent development.

Three main hypotheses are current at the present time. The first of these is based upon data which are believed to indicate that oxidative changes are responsible for the conversion of the sulfonamide into more active compounds such as para-hydroxyl-amino-benzene sulfonamide, a compound which has been shown to be exceedingly active. The second assumes the formation of a derivative by mild oxidation which is a highly active anticatalase and the lethal action results from the accumulation of hydrogen peroxide. Both these hypotheses are based upon oxidations, but recently it has been shown in several laboratories that the bacteriostatic action of the sulfonamides is not necessarily reduced under anaerobic conditions. For this reason the third theory, based upon the hypothesis that the drug acts on bacteria to prevent them from utilizing the substrate, or upon the substrate to prevent it from being utilized by the bacteria, is attracting special attention.

It was discovered by Woods early in 1940 that *p*-amino-benzoic acid counteracts the bacteriostatic action of sulfanilamide, an influence which has since been shown to apply to all the sulfonamides. This observation is of great interest for several reasons: para-amino-benzoic acid is a constituent of the vitamin B complex and has been shown to be an essential substance for the normal growth of various forms, including chicks, molds, and bacteria. The English school (Woods, Fildes) postulates that *p*-amino-benzoic acid is an essential growth substance in those bacteria that are susceptible to the action of the sulfonamides. These two substances have a similar basic structure, and, according to the theory of Fildes, compete for

gens are conjugated, depending upon whether the dose is given by mouth or parenterally. If given by mouth, more is conjugated when it reaches the liver before being disseminated throughout the body.

INTERN: The sulfonamides have now been in use for a period of about five years. We have all seen many cases of jaundice and kidney damage. Have there been any later reports on such patients indicating permanent damage?

DR. BARR: Dr. Plummer, do you wish to comment on that?

DR. PLUMMER: Sulfadiazine, the drug with which our discussion is chiefly concerned, has been used for a much shorter period than that. Sulfadiazine was introduced in 1940 and we have been actually using it for just two years. The reactions that you refer to, particularly the jaundice, occurred much more often with sulfapyridine and probably more often with sulfapyridine and sulfathiazole than with sulfadiazine.

In the entire series presented in the table there was not even a suspected case of hepatitis and no case of jaundice.

Does your question relate to the development of reactions in patients who have received the sulfonamide a second time?

INTERN: What I should like to know is whether people who have not had the drug for many years have developed any disease of the kidney or liver that might be attributed to the initial dose of the drug.

DR. PLUMMER: On that particular point we do not have nearly so complete a follow-up as we would like. However, of the patients treated for pneumonia at Bellevue Hospital with sulfapyridine and then with sulfadiazine, a great number were followed in the clinic, and so far as I know no late reactions have been recognized, nor, so far as I know, elsewhere.

DR. HARRY GOLD: The City Health Department recommends sulfathiazole for the treatment of gonorrhea. I wonder why the choice of sulfathiazole.

DR. PLUMMER: Is that a recent recommendation?

DR. CATTELL: Yes.

DR. PLUMMER: I am not surprised because there has been a good deal of switching back and forth with these drugs. I believe that again it is the matter of economy of the sulfathiazole that has played a part. In many of these cases, particularly those in which a small dosage is used, there is not a great difference in the toxic reactions.

The gonococcus as a rule is susceptible to all of the sulfonamides, but the choice is between sulfathiazole and sulfadiazine.

I think that the final word has not been said, but on the basis of what we know now, particularly concerning the more uniform absorption, the better sulfadiazine levels, and the lower incidence of toxic reactions, sulfadiazine seems to be a slightly better drug.

DR. GOLD: May I, in relation to that point, ask one more question? I have seen somewhere the statement that there is a lesser tendency for the development of resistant strains of the gonococcus in relation to sulfathiazole than to some of the other sulfonamides. Do you have any information about this?

DR. PLUMMER: I know that a great deal of work is being done along that line but up to the present time we have no reason to believe that sulfathiazole would be less apt to produce drug resistance than would sulfanilamide, sulfapyridine, or sulfadiazine.

DR. CATTELL: There have been some recent reports, both laboratory and clinical, showing the development of tolerance by bacteria to one and not to another sulfonamide. A recent study of the problem in relation to gonorrhea was reported and the claim made that cases which became fast to certain other sulfonamides did not become fast to sulfathiazole to the same extent. However, this is certainly out of line with much other experimental evidence. Most studies on bacteria seem to show that when they are resistant to one sulfonamide the resistance applies to the whole group of drugs.

DR. PLUMMER: I think that Dr. McDermott, who has been working with us, has been going over the reports relating to that particular problem, and he might have something to add.

DR. W. McDERMOTT: There is a large body of evidence indicating that all the sulfonamides act in about the same way. There is not one drug which is better with respect to the streptococci or the staphylococci. The difference is quantitative only. Sulfadiazine is a stronger sulfonamide than sulfapyridine or sulfanilamide, but there are no tricks that one has that the other does not have. So I doubt whether the resistant organism could be made non-resistant by using another drug.

DR. GOLD: In regard to organism specificity of the sulfonamides, the study of Wyss, Grabau, and Schmelkes is of interest. By means of a special technic making use of the antagonism between the sulfonamides and para-aminobenzoic acid, they obtained evidence that a wide variety of organisms showed equal sensitiveness to different sulfonamides.

DR. PLUMMER: Dr. McDermott, would you also make a point about the effect of pH? That is a factor to be considered.

excess of the therapeutic range are required for the production of toxic symptoms in animals. With the exception of damage to kidney function, the side actions which are occasionally so serious in man have not been reproduced in animals. Animals, on the other hand, under the large doses necessary, present a picture of poisoning bearing no relation to the side actions ordinarily seen in man.

Because it is rather the exceptional case that develops one of the more serious toxic symptoms during therapy, there is an unfortunate tendency to conclude that the patient possessed an idiosyncrasy to the drug—whatever that means. This is merely hiding behind the cloak of ignorance. I believe that the accumulated evidence justifies the conclusion that the sulfonamides have a definite pharmacologic action on a number of the systems of the body, the more important being depression of the bone marrow, damage to the kidneys and the liver, and a more generalized metabolic action which is reflected in the skin rash and "drug fever." Is it not probable that only in certain cases, depending upon individual variation and pathology, does the action proceed to an extent that can be recognized through the occurrence of symptomatology? The development of more precise functional tests should provide the means of detecting and following these early changes, which at the present time are too often recognized only after irreversible damage has been done.

For successful therapy the concentration of the sulfonamide in the blood must be maintained at an effective level, usually between 5 and 10 mg. per cent. The relationship between blood concentration and the occurrence of toxic symptoms has not been so clear. Many cases have been reported in which serious toxic manifestations have developed at low sulfonamide levels. In fact, the statement is frequently made in the clinical literature that larger doses of the sulfonamides are no more likely to cause difficulty than the smaller ones. This comes as a serious blow to the pharmacologist, who will need to abandon the quantitative aspects of his science if the dosage-response relationship cannot be sustained. Precise information is difficult to obtain, but I have confidence that after the smoke clears it will be found that the toxic effects of the sulfonamides are related to the amount of drug administered.

Finally I should like to touch upon the interesting problem of so-called "drug fastness" as it relates to the sulfonamides. There is a growing body of evidence, partly clinical and partly experimental, indicating that under certain circumstances these drugs may lose

their effectiveness in the course of time. The most complete evidence has been obtained for the pneumococcus, in which form, and in several laboratories, it has been shown both in vitro and in vivo that treatment with sublethal doses over a long period of time results in a drug-resistant strain. A recent report on the subject will be found in a paper by Schmidt, Sesler, and Dettwiler, of Cincinnati. Several strains of the pneumococcus were made highly resistant to sulfapyridine by serial passage through mice treated with less than curative doses. In the course of time strains were developed which multiplied rapidly in the highest concentrations of sulfapyridine that can be maintained in the body fluids or in artificial media, and they were resistant to other sulfonamides as well. This suggests the survival of the fittest—i.e., the selective propagation of the drug-resistant variants. The practical implications of these findings have been emphasized by the authors. Since resistance is known to develop during clinical use, it is conceivable that the dissemination of those organisms by carriers will ultimately curtail the value of sulfonamide therapy.

I have touched on only a few of the many pharmacologic topics of interest in connection with the sulfonamides. Perhaps we can pursue the subject further in discussion.

DR. C. H. WHEELER: With reference to the table of toxic reactions, I think many of you who have been working here will be surprised to see some of those values so low. We should emphasize what Dr. Plummer did not have time to emphasize—that this list includes no patients who received even a single injection of sodium sulfadiazine intravenously. It includes no patients who had been treated for even a day with sulfathiazole or one of the other drugs before they received sulfadiazine. Only patients who had received the standard oral dose of sulfadiazine and had never received any other sulfonamide in the immediate past are included.

DR. EPHRAIM SHORR: In the case of sulfadiazine parenterally, were not the blood values excessive even though the dose was not large?

DR. PLUMMER: No, they were not unusually high.

DR. WHEELER: For instance, we have had a severe renal reaction after a single initial dose of sulfadiazine intravenously.

DR. SHORR: That brings up a point with respect to changes in the molecule which we speak of as detoxification changes. I understand that acetylation in the liver represents the major change. This is a principle that not only holds for sulfadiazine but also for some of the synthetic estrogens. There is a great difference in the speed with which synthetic estro-

results from an interference with the utilization of para-amino-benzoic acid, an essential constituent for bacterial growth. Methionine and certain other growth-promoting substances have also been shown to interfere with the bacteriostatic action of the sulfonamides. Furthermore, the mechanism apparently involves also bacterial toxins, since the sulfonamides have been found to protect mice against fatal doses

of Salmonella toxin, an effect which is neutralized by para-amino-benzoic acid. Another interesting aspect of the action of sulfonamides is the development of drug-resistant strains when the organisms are constantly exposed to sublethal concentrations of the drug. This occurs both in vivo and in vitro, and has obvious importance from the standpoint of the possible dissemination of drug-resistant strains by carriers.

NATIONAL HEALTH ADVISORY COUNCIL

A National Health Advisory Council was organized in Washington on February 5 to project and carry out a broad program looking to health conservation as one of the most important factors in winning the war.

The Council was created by the Chamber of Commerce of the United States to consider national health problems in relation to the war program.

The meeting was opened with a statement by National Chamber President Eric A. Johnston, which said in part:

"... aside from the direct benefits accruing to the war effort from health conservation, we must consider the staggering cost of disease. Together with physical disability, it is taxing the American people \$10,000,000,000 a year. This tax everyone pays and no one gets. It is a 5 to 10 per cent drag on war operations."

General chairman of the Council is Dr. James S. McLester, professor of medicine at the University of Alabama, who outlined the contemplated nationwide program. He said:

"The plan is for a broad educational effort designed to raise the nation's health levels. Once established, it is earnestly hoped that these levels can be maintained after the war is won, as a means of continuing improvement of the national welfare."

The National Health Advisory Council will serve to channel approved technical health information developed by the country's many scientific associations to business organizations and their members throughout the country, so there may be brought about a better public understanding and appreciation of medical science as a means of safeguarding public health to win the war. It will work through the Chamber of Commerce of the United States as a central organization, which, in turn, will work through its far-flung membership of trade associations, chambers of commerce, and corporations and firms. The Council's membership starts with thirty of the nation's leading medical and health authorities. This membership will be increased as the work progresses.

The council's first meeting, presided over by James L. Madden, of New York, vice-president of the Metropolitan Life Insurance Company, and chairman of the National Chamber's Insurance Department Committee, heard a round-table discussion of wartime health problems. Discussion leaders were Dr. James S. McLester, professor of medicine, University of Alabama; Dr. Wilson G. Smillie, Medical School, Cornell University, New York City; Dr. Felix J. Underwood, state health officer, Jackson, Mississippi; Dr. Leverett D. Bristol, health director, American Telephone & Telegraph Company, New York City; and Dr. H. M. Marvin, Yale University, New Haven, Connecticut.

At a luncheon meeting Dr. Thomas Parran, Sur-

geon General of the United States, talked on the health state of the Nation.

The Committees of the Health Advisory Council are:

General Chairman—Dr. James S. McLester, professor of medicine, University of Alabama.

Community—Chairman, Dr. Wilson G. Smillie, Medical School, Cornell University; Dr. Paul White, president, American Heart Association, Massachusetts General Hospital; Dr. J. Burns Amberson, Bellevue Hospital; Dr. George Kosmak, professor of obstetrics, New York Academy of Medicine; Dr. George R. Cowgill, Yale University; Dr. Harry Bakwin, professor of pediatrics, New York University College of Medicine; Dr. Ernest L. Stebbins, Commissioner of Health, New York City; Dr. F. J. Underwood, State Health Officer, Jackson, Mississippi; Mr. Bailey Burritt, president, Committee on Neighborhood Health Development, New York City; Dr. Henry F. Vaughan, University of Michigan.

Industrial—Chairman, Dr. Leverett D. Bristol, Health Director, American Telephone & Telegraph Company, New York City; Dr. Harvey Bartle, Pennsylvania Railroad, Philadelphia; Professor Philip Drinker, Ph.D., Harvard University, School of Public Health; Dr. Anthony Lanza, chief, Occupational Hygiene Section, Office of Surgeon General, U.S. Army, Washington, D.C.; Dr. John J. Prendergast, medical director, Chrysler Corporation, Detroit, Michigan; Dr. Loyal A. Shoudy, Bethlehem Steel Corporation, Bethlehem, Pennsylvania; Dr. W. A. Sawyer, medical director, Eastman Kodak Company, Rochester, New York; Dr. Harry E. Ungerleider, assistant medical director, Equitable Life Assurance Society, New York City; Dr. John J. Wittmer, Consolidated Edison Company, New York City; Mr. John Dewey Dorsett, manager, Casualty Department, Association of Casualty & Surety Executives, New York City; Mr. G. W. Hardy, Lumbermen's Mutual Casualty Company, Chicago, Illinois.

Individual—Chairman, Dr. James E. Paullin, professor of medicine, Emory University, Atlanta, Georgia; Dr. Leroy Gardner, member board of directors, National Tuberculosis Association; Dr. George Morris Piersol, professor of medicine, University of Pennsylvania; Dr. Russell Wilder, Mayo Clinic; Dr. Alfred Blalock, professor of surgery, Johns Hopkins Hospital; Dr. Joseph C. Doane, York & Tabor Road, Philadelphia, Pennsylvania; Miss Marion G. Howell, R.N., president, National Organization for Public Health Nursing, New York City; Dr. Arthur F. Chace, president, New York Academy of Medicine; Dr. H. M. Marvin, Yale University; Dr. Louis Hamman, Baltimore, Maryland; Dr. Wallace C. Yater, professor of medicine, Georgetown University, Washington, D.C.

DR. McDERMOTT: Drs. Fox, Schmelkes, and Wyss, and a number of other people who have been working on the problem, have shown that the chemical and physical environment that the drug is going to work in is a factor. The same effect, for example, may be produced with sulfanilamide in a pH of 10 as with sulfathiazole in a pH of 7 or 7.4.

I think that evidence is conclusive that there is no qualitative difference among the drugs but that it is purely quantitative.

DR. WALTER MODELL: I wanted to ask a question about a recent paper which concluded that amino-acetic acid and ascorbic acid detoxify the sulfonamides but do not reduce their therapeutic efficacy. Do you know the paper?

DR. PLUMMER: I remember the paper, and there have been two or three similar reports in which some substance has been said to do that, but I think that no conclusive evidence has been presented. The evidence is highly theoretic and certainly there is no definite clinical or statistical proof.

DR. SHORR: It is curious that the acid-fast group, which is so resistant to sulfonamide, can be grown very well in a synthetic medium which contains no benzene ring in any of its constituents, so it would appear that para-amino-benzoic acid may be either synthesized by the organism or that it is not necessary for growth.

STUDENT: Is the sodium sulfadiazine preparation stable?

DR. PLUMMER: Sodium sulfadiazine solution, if kept under certain conditions, is stable. We have used a preparation of 25 per cent sodium sulfadiazine contained in ampules that the Lederle Laboratories, Inc., made for us, and we have found no reason to believe that after several months it had lost its potency or changed in any way.

STUDENT: Is there any correlation between pH of the urine and the incidence of renal reactions in the sulfadiazine therapy?

DR. WHEELER: It has been shown quite clearly in vitro that the solubility of sulfadiazine is much greater as the alkalinity of the solution is increased, and there is some clinical evidence that alkalization of the urine by the use of sodium bicarbonate increases the solubility of the drug and decreases the likelihood of renal reactions.

I think at the moment that most people would agree that patients receiving the full dosage of these drugs should be given sodium bicarbonate because, if carefully supervised, it will do them no harm and it may have some effect in preventing the renal reactions.

DR. SHORR: How much urinary output would you suggest?

DR. WHEELER: In general I think it is ideal to have an output of around 1,000 cc. a day when that is feasible. On the other hand, we have had many patients who had severe renal toxic effects even though their output had never been less than 1,000 cc., and we had quite a few who had toxic effects with a renal output of 2,000 or 3,000 cc. So it is certainly true that a large output does not guarantee that no reaction will occur.

Summary

DR. CATTELL: There have been no outstanding new discoveries in the field of sulfonamide therapy since our conference of a year ago, but on the other hand the period has been one of continual progress in the applications of the sulfonamides. Succinyl sulfathiazole has provided us with a method of securing high concentrations of sulfathiazole in the gastrointestinal tract, and its relative safety gives it a secure position in the therapy of various infections of the tract. Further experience with sulfapyrazine suggests that it does not differ significantly from that of its isomer, sulfadiazine. Sulfamethyldiazine has been used in England and, because of its relatively high solubility and in a very limited experience a low incidence of toxic reactions, is deserving of further study. A fairly extensive experience with sulfadiazine has borne out the earlier impression that the incidence of toxic reactions from it is very low. In a series of 912 cases treated with sulfadiazine at the New York Hospital, 92 per cent took the full dosage of sulfadiazine with no manifestation of toxicity. Renal reaction due to precipitation in the urinary tract is now recognized as one of the most frequent and serious complications of the use of sulfadiazine. Fortunately, with proper supervision these cases can be recognized early, and in the present series no fatalities occurred from this cause. The only fatal case was in a patient who developed thrombocytopenia.

Sulfadiazine is second only to sulfathiazole in its bacteriostatic action and the slight difference is probably offset by the fact that after sulfadiazine the blood and tissue levels are higher and more uniform than is the case with sulfathiazole. Sulfadiazine now has a wide range of clinical usage and appears to be effective in all cases in which the sulfonamides are of value.

During the past year numerous studies have been reported with a view to elucidating the mechanism of action of the sulfonamides on bacteria. In general, this has tended to confirm the prevailing view that bacteriostasis

entire population and so indirectly to the practicing physician. It sees in these plans a great opportunity for modern public health education. We aim to be modern in the use of our professional ability. We must not fail to recognize that we

must also be modern in making our professional resources available.*

*Later issues of the JOURNAL will carry an outline of practical systems for prepayment Medical Care Insurance.

PUBLIC EDUCATION PROGRAM ON CANCER STILL IS INADEQUATE

The public education program on the cancer problem is still inadequate and ineffective, Drs. Charles R. Harms, Jules A. Plaut, and Ashley W. Oughterson of New Haven, Connecticut, declare in *J.A.M.A.* in a report of their study of the causes of delay in treatment of cancer in 155 patients.

It was found that only about one-fourth of the patients had read about cancer and that all but 2 of these had obtained their information from newspapers and popular magazines. Only 2 admitted reading public health pamphlets. . . .

"Delay in the diagnosis and treatment of cancer," the three physicians say, "is one of the most important factors in the failure to obtain better results by the methods of treatment now available. . . ."

They interviewed 158 successive cancer patients as they were admitted to the New Haven Hospital or Tumor Clinic. Three patients came immediately to the hospital for emergency treatment, 1 because of intestinal obstruction and 2 because of hemorrhage.

"The definition of delay due either to the patient or to the physician," they explain, "must necessarily be arbitrary. . . ."

Eliminating the 3 patients who reported immediately for treatment, the authors say that 85 patients, or 54.8 per cent, were responsible for the delay, while 27 physicians, or 17.4 per cent, were said to be responsible. Both the patient and the physician were responsible for the delay in 43 instances, or 27.8 per cent.

"The patient was found to be either wholly or in part responsible for the delay in 128 instances, or 82.6 per cent," the three physicians found. "All but 7 of the 128 patient delays (121, or 94.5 per cent) were initial delays. The other 7 did not follow the physician's advice in spite of his efforts. . . ."

The causes for delay among the 153 patients were reported to be as follows: symptoms "not serious enough," 56.9 per cent; negligence, 11.3 per cent; no delay on the part of the patient, 11.3 per cent; expense, 10.1 per cent; ignorance, 6.9 per cent; fear

of cancer, 1.4 per cent; fear of doctors, 1.4 per cent; . . . 7 per cent.

As the authors say that "failure to recognize signs and symptoms accounts for most of the delay. This is primarily an educational problem which is obviously not being met by present methods. The second most important factor defined as negligence may also in large part be corrected by proper education. The economic factor accounts for 10 per cent of the group. . . ."

"The effectiveness of an education problem can best be judged by the content of knowledge possessed by the group as well as its effectiveness in producing appropriate action. The following general questions were asked in order to evaluate the information regarding cancer possessed by the group: How many patients with malignant tumors think of cancer as the cause of their complaints? Only 21, or 13 per cent, answered in the affirmative. Breast cancer was responsible for 13 of these. The median delay for patients who thought they had breast cancer was 3.25 months, while the median delay for all breast cancer was 6.5 months. This suggests that the delay could be halved if all patients were aware of the significance of their symptoms. It was also found that only 42, or 26 per cent, of the patients had read about cancer. . . . Only 2, or 1.2 per cent, had ever heard a lecture on cancer, and both of these had been while attending National Hospital Day. Although the entire group seemed poorly informed regarding cancer, 80 per cent thought that cancer was curable and 91 per cent thought that treatment was urgent. . . ."

As for the delay by the physician in making a diagnosis, the authors point out that this is important but explain that "the information on which these data are based was obtained chiefly from the patient, and it is likely that many of these patients did not cooperate by returning to their physicians for further study. For accurate information it would be necessary to interview both the patient and physician. . . ."

BETHUNE SCHOLARSHIPS AWARDED AGAIN

The Bethune medical scholarships, established in 1941 in memory of Dr. Norman Bethune, a Canadian physician who was one of the organizers of medical service for China's northwest guerrilla region, are

being offered again this year, the China Aid Council announces. The scholarships are to be awarded yearly to two students who distinguish themselves in the medical field.

Special Article

VOLUNTARY PREPAYMENT FOR MEDICAL CARE

HERBERT H. BAUCKUS, M.D., Buffalo

Chairman, Council Committee on Public Relations and Economics

Medical Society of the State of New York

ALWAYS in our dreams we hear the turn of the key that shall open every access of ideal medical care to all mankind. There is a human limit to the forward theme of our professional responsibility to comfort and preserve, although research and the good old-fashioned method of rowing hard against the stream of life will keep our incomparable American medicine ever modern and will make it better. But, no less, we owe it to those we serve that the accumulated skill and knowledge we possess today be made available for use by all of our people.

To teach both the well and the sick to accept great advantage of preventive and curative medicine regularly and promptly is a difficult task.

Voluntary prepayment for medical care, with nonprofit insurance to provide the means for distributing the costs of family illness over larger groups, is a system that embodies in its economic protective functions equally important health- and character-building features. It teaches health and health responsibility to the individual and to the family. The mutual character of the plan in itself makes for prevention of disease. He who would protect his welfare must accept a personal part in his community health program.

Such voluntary plans are still in the early stages of practical development, but they are beyond the period of uncertain experimentation. They are especially designed to appeal to regularly employed workers. Voluntarily, the worker agrees to set aside a small portion of his monthly earnings to create the funds disbursed by the insurance corporation to pay for the expenses of medical care. Since these plans are for mutual benefit, have mutual management, are nonprofit, cost comparatively little for administration, and are flexible to the needs of the participating groups, it would appear that the only reason they are slow to sell is that they are not understood. The choice of the physician is left to the patient. The modern method of administering medical services is not at all changed. The cost of these services is not increased, and in many instances it is reduced. The payment received by the practicing physician

under the present medical indemnity type of insurance is the usual fee regularly associated with modern high standards of medical practice. There is no trend to inferior or indifferent service. Subscriber-patients to such professionally approved plans have found their investment a most desirable one, and withdrawals seldom occur. They are learning that it pays to call for medical service when it is first needed. And in so learning, they have absorbed one of the most important lessons of good public health.

The practicing physicians working under a prepayment medical plan should consider:

1. That neither in war, nor in peace can we afford to leave people without medical care. Industrial producers of war materials, and their families, must be kept in good health.
2. That the average American prefers and is willing to pay for his medical care.
3. That if he is helped to budget for himself and his family, he will learn to attend to illness at an early stage, thereby protecting much needed civilian health, as well as conserving the doctor's time.
4. That if he is taught to budget regularly and within his income, he will continue to consider medical care a basic necessity next to shelter, food, and clothing, even in times of smaller earnings.
5. That the physician's leadership in promoting such plans is needed.
6. That physicians should discuss the possibility of a prepayment medical plan for their counties with community representatives including:

- (a) Social agencies
- (b) Industrial representatives
- (c) Labor leaders
- (d) Representatives from community and dominant nationality groups

The Medical Society of the State of New York is committed to the full approval of voluntary nonprofit Medical Expense Indemnity Insurance. It urges its members to participate in this movement wherever possible to advance the progress of good health in this country. It feels that such plans are greatly to the benefit of the

But just as the merchant ship must meet certain specifications to be converted to war purposes, so must the civilian meet certain specifications—both physical and mental. It is the mental requirements which are of interest here. Approximately the same standards are used for peacetime as for wartime service. The differences in selection which result are due to the speed necessary in war, and to the attitude of the average volunteer as compared with the average selectee. The speed of induction of the wartime recruit is likely to increase the number of mental misfits in the services. The average volunteer (whether in peace or war) is apt to disguise any defects: forget that his mother is insane, or that he has had delirium tremens or fits. The selectee, on the contrary, is more likely to remember everything which might prevent his induction, even remember things that never existed. Therefore each class presents its distinctive problem.

Certainly the man whose mental buoyancy corresponds to the leaky hulk will not make a good sailor, soldier, or marine. The unsocial, the moron, the hysterical, and the psychotic must be excluded. The alert noncommissioned officer on recruiting duty knows this. So does the recruiting officer, line or medical, and they can accomplish a great deal in rejecting men whose minds lack stability or buoyancy.

Weeding Out the Unseaworthy

Available to selection boards and training stations are psychiatrists. And a good psychiatrist may decrease the number of unseaworthy minds admitted to the services. These specialists in mental diseases have emphasized the fact that 60 per cent of the veterans of World War I who required hospitalization for disease were sick with neuropsychiatric diseases. (Each cost the taxpayers \$30,000.) But they have overemphasized the inference that even with all the time they want (and they need a lot of time) they can greatly reduce that percentage in this war by selection alone. And unless the psychiatrist is both a good psychiatrist and has a clear idea of the service for which he is selecting men, he might pull out a lot of valuable military seedlings along with his weeds. There is a type of man who is a poor, not to say bad citizen, who in peacetime services is frequently in trouble, but who in war makes the ideal fighting man. I recall a marine of the Second Division in France in 1918. "Me and the major is the only ones what rates a orderly," he used to say, because he was always under guard for some breach of discipline. But at Bois de Belleau in June and again at the counteroffensive from Villers Cotterets in July he fought like a demon. Every experienced

military man has seen such characters. "Admiral X," remarked a ranking officer recently, "has just enough of the so-and-so in him to make a good leader." If this war is to be won, in the writer's opinion men of this type must not be excluded even at the risk of wasting time and money on a few incorrigibles.

The ideal of the psychiatrist is to reconstruct a picture of a recruit's mental background and obtain an accurate evaluation of his present mental stability. That is all. But even if a man's background is perfect (it never is), and his present mental stability is unquestionable, that does not prove his mind can withstand the particular shock to which this war is destined to subject him. The best psychiatrist and medical officer combined cannot foresee the personal role the man is to play in this particular war.*

The best that can be done, therefore, is to pick men with reasonably substantial minds just as the Navy picks for war conversion ships which are reasonably substantial. A great deal of thought has been put on the selection of men to withstand the mental shock of war. But too little emphasis has been put on a mental preparation during conversion to increase resistance to that shock; and hardly any emphasis has been put upon mental supervision—damage control—to maintain resistance to shock. As I write, a fourth of the nonbattle disabilities in the active Navy are due to mental conditions. And these are permanent disabilities. It is high time that the subjects of mental conversion to war purposes and the damage control of the mind be given the thought they deserve.

First Day the Hard Way

The civilian who has been selected as physically and mentally fit for the Navy is immunized against typhoid, tetanus, and yellow fever; he is taught to shoot and his muscles are developed. Also immediately he receives his first mental shock—his transfer from the comparative freedom of a domestic environment to the intimacy of a restricted community with definitely marked distinctions of rank and privileges.

It is significant that of those in the first World War who finally foundered mentally, almost one-tenth went under on the *first day* of military service. It would not be surprising if the same occurs in this war, judging by this story of a

* Although Captain Michael writes as an experienced medical officer, it should be pointed out in fairness to the psychiatrists that these specialists in mental diseases actually have no authority to pull selectees from military service. They make their diagnoses; the decisions are made by others. Thus Dr. George S. Stevenson, medical director of the National Committee for Mental Hygiene, states that the tendency has been for too many clear cases of neurosis, even psychosis, to get into the Army—rather than for borderline cases to be ruled out.—THE EDITORS OF SURVEY GRAPHIC

Special Article

MEN'S MINDS AND SHIPS

W. H. MICHAEL, Captain (Medical Corps), U.S. Navy*

WE SAW a holocaust of men and ships at Pearl Harbor. In all the horror of that morning it seemed that man had done his worst in the destruction of man and the works of man.

But beginning that day and on through the days that followed, it became evident that the damage had gone beyond visible destruction. It had wrought invisible havoc with men's minds as well as with men's bodies and men's ships.

Among the wounded was a big healthy-looking sailor. He was trembling, his face anxious, his eyes wild. "Where's your wound?" a medical officer asked. "I'm not wounded. I try, but I just can't take it." And he went on sadly repeating, "I can't take it."

"Shell shock. Anxiety neurosis," murmured the Navy surgeon.

On the next day, and the next, and the next, more cases of anxiety neurosis appeared. It is the commonest acute form of the violent mental shock of war (not to be confused with the physical shock of explosive blasts causing breaks in tissue with visceral rupture or multiple hemorrhages within the skull, the chest, or the abdomen). But there were other varieties of damage to the mind: soldiers' heart (effort syndrome), gastric neuroses, dementia praecox, and many forms of psychosis all precipitated by the shock of war. For the unconscious mind finds devious ways to defend the body, and the mind whose balance has been destroyed devises devious means of creating a fanciful, a more pleasant mental environment to replace a real material environment which has become intolerable.

The same action that had destroyed the balance and buoyancy of ships had also destroyed the same elements in men's minds. For men's minds are like ships. Both go down when their buoyancy is destroyed. Some minds are leaky tramps and make heavy weather, even founder in the tranquility of peace. Some are destroyers—quick, aggressive, but not able to withstand a great shock, a torpedo; and some minds are like battleships which may withstand the shock of one or two torpedoes and remain afloat. *But no ship, no mind is unsinkable.*

* The views and opinions expressed in this article are not necessarily those of the Navy Department.

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Even Trained Men Are Like Converted Merchant Ships

Yet there is an essential difference between ships and minds: When a sailor—who knew his Hawaiian—saw the destroyer *Shaw* explode in the drydock, he exclaimed: "That tin can is *pau*." Yet in two months the *Shaw* went back to the mainland under her own steam. I saw her picture recently. She has a new bow, is ready to fight.

But the mental, the invisible casualties: as far as active participation in the war is concerned, they are *pau*. They are out of active service for good. Of all the nonbattle casualties who went to the mainland in the month after the attack, approximately half were sick with mental disease. The best they can hope for is an apparent recovery and a quiet job. Ships can be rebuilt, better, more modern than before; minds can only be patched.

When a ship goes down, the cause of sinking is easily discoverable. The ship's sides may have been blown in, watertight bulkheads may have given way. But sometimes ships sink from causes which might have been averted, and the Navy has developed methods to limit the damage caused by bomb, shell, or torpedo and to prevent all sinkings which can be prevented. These methods constitute the modern science of *damage control*.

Damage control in ships built for war begins soon after the laying of the keel. The ship is divided into many compartments by watertight bulkheads. There may be blisters to prevent the explosion of a torpedo from reaching vital parts. A system of flooding or pumping compartments helps to keep the ship on an even keel and to maintain buoyancy. The warship is built with the paramount idea of carrying armament and using it effectively.

But in ships built for peacetime, the possibilities for damage control are more limited. Their bulkheads might be strengthened, armament for defense added, crews trained in the art of emergency repairs, guns and gun crews added.

Only Hitler has attempted to create men built for war. Even the trained navy man or the trained soldier was created for peace. He is like a merchant ship in which the conversion has been carried out as completely as possible.

moved from the other men at once. Nothing is more contagious than a neurosis while still undergoing the shock which has caused it.

Control of fatigue is usually given the attention it deserves, but its potential importance must not be forgotten. Because, in itself, fatigue may cause shock and neurosis; and the state of fatigue aggravates the effect of any mental shock. The Air Corps has learned that one aviator can stand as much as ten hours of flying, another is nervous and tired after six hours. It is the Navy's job to use to the maximum—not beyond it—all who are fit to fly, or fight.

Another example: A submarine commander reported in after eighty-four days at sea. "My crew," he said, "is in good shape. I want to keep them that way or better. I want two weeks leave for all hands."

They got it.

When Something's on Their Minds

The confessional, through the centuries, has been recognized by the Catholics as the greatest boon to mental stability. Though the institution of the confessional is not recognized by the Navy, every mature officer or man has witnessed (or experienced) the salutary effect of the frank discussion of intimate personal problems. And if the discussion leads to a solution, so much the better. The recruit, suddenly in a strange new environment, and usually assuming the new problems of physical maturity, is frequently in great need of a confessor. The chaplain and the medical officer are there, but it takes an intrepid recruit to bridge the social gulf between himself and the average chaplain or medical officer.

The chief petty officers who command the recruit companies at a naval training station are, or try to be, tough, tyrannical, and rule more by fear than by example. "Gee, I'd never have gone to him with my troubles," is the usual reaction. These are the common sentiments of replies about the period in the training station: "I was scared to death all the time" or "It was my worst time in the Navy."

Obviously, neither chaplain, medical officer, nor chief petty officer serves as confessor. The

confessor or monitor should be an experienced man with some knowledge of the Navy, and should keep himself in intimate contact and sympathy with the recruit. Navy men surveyed for physical disability or in a convalescent status would be ideal. Of course, they would need instruction.

After leaving the training station, there are always sufficient men of varied experience to act as confessors. And even though the young men need a confessor more often, the older men and officers do need one occasionally—and then imperatively. Every man in the Navy—admiral to apprentice seamen—should have someone with whom he feels at liberty to talk things over.

The system would have to be official to act. This system would not only serve to solve personal problems and get things off the chest of those confessing, it would also serve to observe the mental stability of every man in the service. Mental instability is serious to an outfit in proportion to the importance of the man whose mind becomes unstable. Frequently observations are made, yet no timely action is taken. It is only after a man has fondered with a neurosis that his chief petty officer confesses to the medical officer: "Something seems to have been bothering him," or "He's been acting screwy for a couple of weeks." Such information might have saved the man *before* a frank neurosis had developed.

Wooden ships and iron men was the boast of the Old Navy. Then came the ironclad, then the steel ship. And now we have divided the steel ship into a series of compartments intended to limit the destructive action of gun, bomb, or torpedo fire. In the condition of alert, a complicated system has been installed to maintain the equilibrium and buoyancy of the ship.

All this we have done for ships, until they are harder and harder to sink. But the means of sinking ships has kept pace with damage control. Ships continue to go down. The means of destruction of minds has also increased. Minds, too, will continue to founder. We can only do our best to keep as many minds afloat as we can by damage control.

MEDICAL TEXTBOOKS AID RUSSIANS

American medical and surgical textbooks, sent to the Soviet Union by hundreds of American physicians and medical students through Russian War Relief, are helping to prepare new doctors for work with the Red Army, it was revealed in letters sent to Russian War Relief by students in the First Kharkov Medical Institute. The Kharkov Institute, one of the largest medical schools in the world,

was moved to Chkalov when the Nazis occupied Kharkov. Classes were in full swing within a week after the faculty and student body left Kharkov.

Russian War Relief is seeking all kinds of up-to-date medical textbooks for Soviet medical students and for the Central Medical Library, in Moscow, which is used by both military and civilian doctors.—*J. Med. Soc. Co. N.Y.*

naval recruit's first day at the training station in January, 1942:

They drop us *boots* from trucks at the training station yard at about 7 A.M. and order us to pile our bags against the fence. "Fall in," is the next order, then "off with your clothes." We obey, letting our clothes fall where we stand. Dressed in our birth-day suits, we are vaccinated for smallpox and form in a line which moves slowly upstairs. In four hours I reach the doctor's office and, when my turn comes, I am given my final physical examination. Back in line again, and as we move along I get an antitetanus shot in one arm and an antityphoid in the other. Then, still standing, a hospital corpsman flattens out one arm on a board, sticks a hypodermic needle in a vein and draws out a big syringe full of blood. I move on along in line, holding a tuft of cotton over the needle hole.

At last I reach the dental offices. It's sure good to sit down, even in a dentist's chair. The dentist makes a chart of my teeth, tells me I've got to have a rotten molar out and three other teeth filled. Pleasant prospect. Back in line again, I go back to the lawn. We put on our clothes and get some dinner. After I eat I fall in a new line to have navy clothes issued. This line takes from three to six hours. I make it in four, taking time out for supper. It is midnight when I get to the barracks and am assigned a bunk. I am tired, but I can take it. Some of the young kids are blubbering like babies.

At 4:30 A.M. a chief specialist (one of Gene Tunney's race horses) turns us out. Lord, I am sleepy and my arms ache from the shots! "Double time," he shouts, and away we go for a half mile. That first day in the Navy is tough.

It may be contended that such a day as an introduction to the Navy is a good trial to weed out the weaklings. But for youngsters, some of them just seventeen years old, and for many who have left home for the first time, a day like that is initiating mental conversion with a vengeance, with an unnecessary shock.

Many humane and considerate gestures could and should be instituted. These, trivial in themselves, would not decrease efficiency but would enormously moderate the ordeal. The mere effecting of the injections and the blood-taking with the recruit seated, for example, would take no more time and prevent the epidemics of faintings which are not unusual during these operations. A day in which so much is to be accomplished cannot be made too soft. And why a half mile trot at four-thirty in the morning the very next day? There is plenty of time to get hard.

A Good Captain—a Good Ship

Damage control of the mind should be begun with that first day in the Navy. It should continue through the years of service by so influencing the environment of both men and officers to increase their resistance to mental shock.

"If there's a war, I want to be in his outfit." Sometimes, during the years of peace, I heard an enlisted man say that of an officer. It is the greatest compliment that could be paid an officer, a compliment not often heard. It signifies that the officer has created for that man the ideal of military inspiration—the wish to do his duty, if need be, his ultimate duty. If an officer can create such an inspiration in each of his men, he has accomplished a near miracle in the mental preparation of his unit for war. That officer does not need lessons in damage control of the mind.

But what are the elements by which such a near miracle is accomplished? There are four: *Loyalty, example, control of fatigue, and what may be called the institution of the confessional*. It is impossible to give these four an order of importance, because that element most lacking in any given military unit is the most important for that unit. The weakest link. . . .

Loyalty is important. Both kinds of loyalty, loyalty from the commander down to the lowest rating assures justice tempered by humanity—and it inspires loyalty from below upward. Loyalty from below upward assures attention to duty and discipline. Both kinds of loyalty together assure *esprit de corps*, high morale. From the point of view of the damage control of minds, loyalty turns the attention of the individual outward from himself to an interest in his ship or unit. His personal problems bother him less in proportion to the importance he gives to the problems of his outfit.

A good captain, if not too much hampered by bad officers and bad men, means a happy and efficient ship, and a ship remarkably free from neuroses. Conversely, an officer, particularly a commanding officer, who is egotistical, who acquires a perverted sense of values, or who is unjust and unsympathetic, is sure to endanger the mental stability of his men. And if he becomes unbalanced. . . .

As loyalty creates *esprit de corps*, example creates confidence. The officer who inspires confidence under fire is doing much for the damage control of his men's minds. If the officer is afraid, he must hide his fear, or if necessary, camouflage it with braggadocio or even facetiousness. If men waver, a word of sympathy, advice or encouragement, a good cussing-out, or a job to do, each in its proper place, may re-establish mental stability and prevent the precipitation of neuroses. Men cowering under bombardment, like dogs in a thunderstorm, usually find themselves when given the proper stimulation plus a job.

When a man actually loses his mental equilibrium—develops a neurosis—he should be re-



FIG. 1. Dr. Anderson's father, John Anderson, from a drawing by Dr. Anderson, engraved by Joseph A. Adams From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.

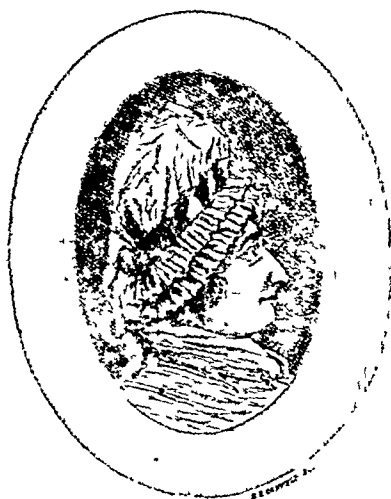


FIG. 2. Dr. Anderson's mother, from a drawing by Dr. Anderson, engraved by H. E. Canfield. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.

youth—this damped my spirits—but I was determin'd to go through with the business Dr. Rogers gave me a more favorable reception. Dr. Smith thought it would be improper for him to attend—I therefore call'd upon Dr. Treat in the evening. He excus'd himself—I bespoke a room at Simmons's Tavern.

"14th. At 4, went with a palpitating heart to Simmons's The Physicians arrived, but as the Court was sitting no magistrate could attend except Judge Yates.—Some doubts arose respecting the law.—The Judge went to the Mayors

& discovering that the presence of two magistrates, at least, was indispensable—postpon'd the Examination 'till to-morrow afternoon. The agitation of my mind brought on a degree of fever which continued the remainder of the day

"15th. Arriv'd at Simmons's a few minutes after 4. Underwent an Examination of an

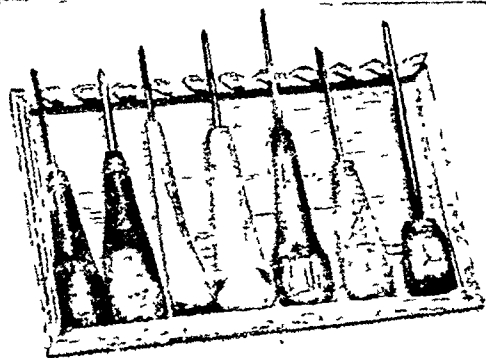


FIG. 3. The engraving tools of Dr. Alexander Anderson, 1775-1870. Photograph of the original tools in the collection of the New York Historical Society.

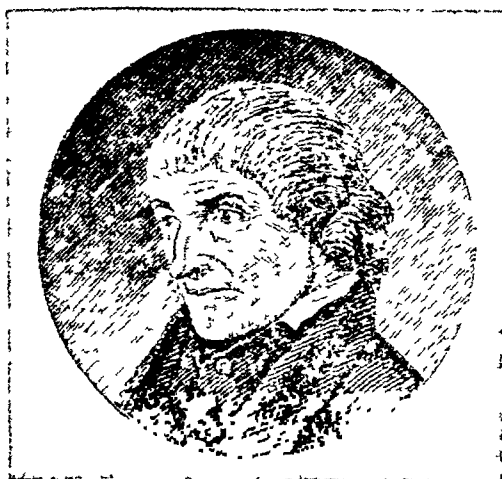


FIG. 4. Joseph Young, M.D., from a drawing by Dr. Anderson, engraved by R. Garraty. For five years Dr. Anderson worked with Dr. Young as his "apprentice." From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.

History of Medicine

ALEXANDER ANDERSON, M.D., 1775-1870
The First Wood Engraver in America

WALTER B. MOUNT, M.D., F.A.C.S., Montclair, New Jersey

OUR interest in Dr. Anderson was aroused by an association with Dr. Lawrance R. Thompson of Princeton University, who with Miss Helen M. Knubel is compiling an authoritative biography, each of these authors having previously published articles about Dr. Anderson.^{1,2,3} Other sources of information, which have been freely used, are the *Memorial* by Lossing,⁴ the *Life and Works* by Burr,⁵ and an article in Kelly's *Cyclopedia of American Medical Biography*.⁶

Alexander Anderson was born in New York City, April 21, 1775, at the very start of the Revolution. His father, John Anderson, a Scotsman, was a printer and publisher, who by his publications incurred the wrath of the Loyalists and was dubbed the "rebel printer." On September 15, 1776, when the British occupied New York, he fled with his family and goods. At Fort Washington the Americans seized his wagons, books, and papers, but he finally reached the home of friends in Greenwich, Connecticut, where he remained for the duration of hostilities. In 1783 he returned to New York as a printer, later becoming an auctioneer. An engraving of John Anderson from a miniature by his son is shown in Fig. 1. Fig. 2 is a similar engraving of his mother, whom he adored, a highly intelligent, religious New Englander, of strong character. She amused him and his younger brother by drawing animals, flowers, and faces. At school he studied, among other subjects, Latin and Greek and could read Latin in his old age. Early in life he began copying pictures. In a letter to Lossing he says: "I recollect being allowed an occasional peep at a considerable pile of prints, such as those issued from the London shops. Among them were Hogarth's illustrations of the careers of the *Idle and Industrious Apprentices*, which made a strong impression on my mind. These prints determined my destiny."⁴ When he was twelve years old, a schoolfellow showed him Chamber's *Cyclopedia*, in which he read an explanation of the process of engraving. He got a silversmith to roll out small copper plates from pennies, made a graver from the sharpened back-spring

of a pocket knife, and set to work. He wrote, "I did a head of Paul Jones and pleased was I when I got an impression with red oil paint in a rude rolling press which I had constructed."⁴ A blacksmith made him some tools with which he cut small ships and houses on type-metal and sold them at the newspaper offices. Fig. 3 is a photograph of his engraving tools, now in the possession of the New York Historical Society. He frequently carried tools and a block in his pockets.

Noticing that his son was copying illustrations from medical books, the father decided to make a doctor of him, and at the age of fourteen, on May 1, 1789, he entered the office of Dr. Joseph Young, who was kinder than he looks in Anderson's drawing (Fig. 4). For five years he worked with Dr. Young, seeing patients, compounding all medicines, and delivering them on foot. He found time to continue his engraving in lettering on silverware, dog collars, instruments, and cane heads, as well as in engraving maps, business cards, and book illustrations. The proceeds of this work paid for his clothes and for lectures in medicine, natural history, chemistry, physics and mechanics, law, and French. In 1793 (on January 14) he matriculated as a medical student in the Album of Columbia College. In 1794, when he was nineteen, he engraved a commencement ticket for the College. A year later Dr. Young offered to make him a partner immediately after he had obtained his license to practice on April 29, 1795. Fig. 5 is a photograph of his certificate, now in the library of the New York Academy of Medicine. The formalities attending the granting of this license are described in his diary for April, 1795:

"April 8th. I call'd upon the Mayor and express'd my wish to undergo an examination for the practice of Physic—he directed me to apply to Judge Benson—I found him not in.

"9th. I call'd upon Judge Benson who referred me to Judge Yates. Saw Judge Yates, who promis'd to appoint an Examination.

"13th. I call'd upon Judge Yates—he appointed for my Examiners Dr. Bard, Dr. Rogers, Dr. Treat, or in his place Dr. Smith—I set off immediately in the rain to notify them. Dr. Bard dissuaded me from it, and objected to my

Read by invitation at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

I went to Mr. Hertell's & got the form of it—from that to a Parchment maker & got the skin—after dinner I finished it in German text.

"29th. I got Judge Yate's hand & seal to my Certificate & afterwards left it with the Attorney General.—

"30th. Call'd upon Mr. Lawrence, who promised to leave my License at my abode."⁵⁷

In 1796 he took the degree of M.D. at Columbia College, choosing "Chronic Mania"⁸ as the subject of his thesis. These ceremonies he also described in great detail.⁵⁷ In January of the next year he was engaged; in February he hired a house; and on April 15, 1797, he married Nancy Van Vleck. On the wedding ring he engraved "United in Heaven." He then became a publisher and bookseller for five months, but he made no money and had his father auction off his 7,000 books.

In 1795 when the yellow fever broke out in New York, Dr. Anderson became house surgeon at Bellevue Hospital, at a salary of \$4.00 a day, from August 24 to November 11. Of 238 patients admitted, 99 were cured and 137 died. The staff consisted of the steward and his wife, three nurses, and two workmen; at times two other physicians assisted. The patients were brought to the hospital by sailboat. Anderson

A ANDERSON
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FIG. 8. A portrait of Dr. Anderson at the age of 44, drawn by Browere, engraved by Thomas Sugden. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.

made a water color sketch of the wharf, building, and boat (Fig. 6). He was then offered a place



FIG. 9. Portrait of Dr. Anderson, engraved by himself in his eighty-first year, after a daguerreotype by Plumbé. From *Life and Works of Alexander Anderson, M.D.*, by Frederic M. Burr. 1893.

FIG. 10. Portrait of Alexander Anderson, M.D., 1775-1870. Engraved for Frank Leslie's *Illustrated News* by A. G. Holcomb. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.



To all to whom these presents shall come, or may concern, Know ye, that in pursuance of an act of the legislature of this State, passed the 27th day of March in the year 1792, entitled "An act to regulate the practice of Physic and Surgery within the city and county of New-York," We have duly examined **ALEXANDER ANDERSON** in respect to his knowledge of Medicine, and having found him well qualified for the practice of this art, We do hereby admit him to practice in the said faculty, in this city and county. In Testimony whereof we have herewith set our hands and seals, the 29th day of April, in the year 1795.

Robert Yates, Justice

*A. Lawrence
Secretary General*

FIG. 5. Certificate admitting Alexander Anderson to practice medicine in New York City and County dated April 29, 1795. In the Library of the New York Academy of Medicine.

hour's length by Drs. Bard, Rogers & Nicoll. After this I was desired to withdraw.—

"16th. Called at Simmons's & paid the expenses of yesterday afternoon—20s.—from that I went to the Judge's lodging, but he was out. I met him afterwards in the street & was inform'd that the Physicians had given a favorable report & the only objection to giving me a License was my non-age; the matter would be decided next week.—

"28th. I call'd upon Judge Yates, who informed me that I might make out my Patent



FIG. 6. The wharf at Bellevue Hospital. Drawn by Dr. Anderson and engraved by C. B. Dolge. Bellevue Hospital was founded in 1736. The patients were brought by boat. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.



ST. NICHOLAS BROADSIDE ISSUED BY THE SOCIETY, 1810
Woodcut by Alexander Anderson (1775-1870)

FIG. 7. Engraving by Dr. Anderson for the St. Nicholas dinner of the New York Historical Society on December 6, 1810. From the New York Historical Society *Quarterly Bulletin*, January, 1941.



Fig. 15. Portrait of Dr. Anderson at the age of ninety-two, drawn by August Will and engraved by Elias J. Whitney. From *Life and Works of Alexander Anderson, M.D.*, by Frederic M. Burr. 1893.

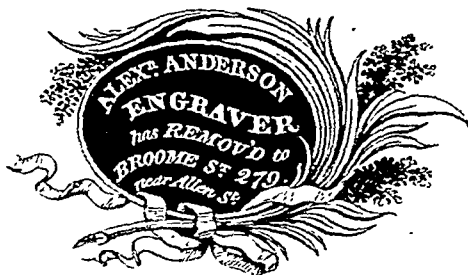
Fig. 16. Illustration for Walter Scott's *Lay of the Last Minstrel*, Dr. Anderson's last finished engraving. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.

uncertainty and experiment, he was unwilling to bear the responsibility of a professional healer whose prognoses might often be unfulfilled.⁴ He himself had a mild attack of yellow fever. In the spring of 1799, he spent several months in St. Vincent with an uncle who was King's Botanist on the Island. He declined a lucrative offer there and returned to New York to take up his engraving again. He soon married the sister of his lost wife and had a happy home life with her. They had one son and five daughters. The son, John, became a physician but died in 1836. The daughters all married.

As we have said, Anderson did much engraving while still studying medicine and continued to do more later. His first work was on copper or type-metal. In 1793 he seems to have used wood for the first time. Boxwood was the only satisfactory wood, and that was prone to crack. He found that the wood of the pear-tree was not suited for fine work. In 1794 he used wood more frequently, especially after reading a sketch of the life and works of the English engraver, Thomas Bewick (1753-1828), and seeing his illustrations of birds and quadrupeds. After 1812 he used only wood. He copied

Bewick's style throughout his life and did innumerable charming small engravings, often full of pathos or humor. His larger engravings, like those in Shakespeare's works, are well spoken of. For years he had very little competition, but as the demand for this kind of illustration grew, many others took up the work. Anderson had four special pupils who worked under him for some time; his second pupil, William Morgan, became his favorite draughtsman. During his life he produced nearly ten thousand separate illustrations which had appeared in perhaps six hundred different books and pamphlets.⁵ One of these is an engraving for the St. Nicholas dinner of the New York Historical Society on December 6, 1810⁶ (Fig. 7). In 1864 Dr. Anderson, then in his ninetieth year, made a similar engraving for another St. Nicholas dinner. He was a member of the old Academy of Fine Arts and a very early member of the Academy of Design.

Anderson was shy, reticent, and modest. He was short, "compactly built, with mild and beautiful dark grey eyes and a face ever beaming with indices of kindly feeling and serenity of spirit." Fig. 8 is a drawing of Anderson at the age of 44; "and for many years that venerable



XXX.



XXV.

FIG. 11. Dr. Anderson's business card, issued in his eighty-fourth year, engraved by himself. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.

FIG. 12. Engraving by Dr. Anderson after his ninetieth year. After Thomas Bewick. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.

as physician to the New York Dispensary at a salary of \$1,000, but he declined the offer.

In 1798 New York was again visited by yellow fever. On July 3 Anderson's three-months-old son died. On August 31 he again took his place at Bellevue Hospital. On September 8 his brother John died, on September 12 his father; the next day his wife. He left Bellevue after only ten days and was appointed physician for the poor.

On September 21 he lost his mother, on September 24 his mother-in-law, and on October 12 his sister-in-law. After experiencing the deaths of seven relatives in fifteen weeks, he decided to abandon medicine for engraving.

A prominent trait in his character was conscientiousness. He could do nothing which conscience did not approve. Because the practice of medicine necessarily involved frequent



XXVI.



XXVII.

FIG. 13. "Till Death Us Do Part." Copied by Anderson from a tailpiece by Thomas Bewick for *The Looking Glass*; recut by Anderson for his own pleasure after he had leisure in his old age. Engraving by Dr. Anderson after his ninetieth year. After Thomas Bewick. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.

FIG. 14. "Dangerous Crossing." Anderson seemed to enjoy Thomas Bewick's little tailpieces which were obviously or potentially humorous. This is from a cut in Bewick's *Quadrupeds* which Anderson copied in his old age. Engraving by Dr. Anderson after his ninetieth year. After Thomas Bewick. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.



FIG. 15. Portrait of Dr. Anderson at the age of ninety-two, drawn by August Will and engraved by Elias J. Whitney. From *Life and Works of Alexander Anderson, M.D.*, by Frederic M. Burr. 1893.

FIG. 16. Illustration for Walter Scott's *Lay of the Last Minstrel*, Dr. Anderson's last finished engraving. From *A Memorial of Alexander Anderson, M.D.*, by Benson J. Lossing. 1872.

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head was surrounded as by a halo, with white locks and beard. His voice was soft and low. He was genial in thought and conversation and had a quick perception of genuine humor. To him this world was a delightful place to live in because it was a reflex of his own sweet spirit. He was extremely regular and temperate in all his habits." Thus writes Lossing,⁴ who knew him. Fig. 9 was engraved by Dr. Anderson in his eighty-first year, after one of the very early daguerreotypes.^{2,6} He objected seriously to the whole procedure. Another portrait (Fig. 10) appears as the frontispiece of Lossing's book.⁴ Fig. 11 is Anderson's business card issued when he was eighty-four years old in 1859. Several engravings were done after his ninetieth year. Fig. 12 is one of these. Fig. 13 has been called "Till Death Us Do Part," and Fig. 14 "Dangerous Crossing." Fig. 15 is a portrait of Dr. Anderson at the age of ninety-two, appearing as the frontispiece of the biography by Burr.⁵ Fig. 16 is Anderson's last finished engraving, an illustration for Walter Scott's *Lay of the Last Minstrel*.

Dr. Anderson was a good miniature painter and in his early life was frequently employed in that capacity. He painted on ivory the portraits of all his daughters when they were young women.⁵ He played the violin and the clarinet. He taught Washington Irving to play the latter. Irving said of him: "He was handsome, artless, and full of good humor, and as gentle as a woman."⁴ In 1867 Mr. Evert A. Duyckinck said that although "there was a partial loss of hearing, his mental faculties were still vigorous, his memory clear, his judgment sound. He conversed freely and talked like one who had thought much in retirement, who had concentrated his thoughts, and made himself master of his reading. He had a copy of the *Orations of Cicero* in the original. It was a well-battered school book, which he said he had recently been engaged in reading without

the aid of a translation, with occasional resort to a dictionary. His comments showed discrimination and judgment of his own. I remember his remark on old age as a thing hard to be understood." The next year he was offered honorary membership in the New York Historical Society.⁴ During his last years he engraved many pictures for his own amusement, taking that method of preserving any design that happened to strike his fancy. He had a little workshop built in the yard, and there he would keep himself busily employed. He never considered his old blocks worth preserving and frequently cut up the larger ones to kindle the fire. He would never consent to receive more than what he considered a fair price for his work, even when a larger sum had been agreed upon. Six months before his death he drew a picture upon a block and had partly engraved it,⁵ but he quietly passed away on January 17, 1870, before the engraving was completed.

21 Plymouth Street
Montclair, New Jersey

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MERGER OF PHARMACEUTICAL COMPANIES

A merger of two companies in the field of ethical pharmaceuticals (drugs dispensed largely on physicians' prescriptions) has been announced by James Hill, Jr., president of Sterling Drug Inc., of which both are affiliates.

Under the merger, Winthrop Chemical Company, Inc., has absorbed Alba Pharmaceutical Company, Inc., and has taken over Alba's assets, property, trade-marks, and good will.

"Although Alba ceases to exist," Mr. Hill said, "its research and manufacturing facilities in Rens-

selaer, New York, have been consolidated with those of Winthrop. Its marketing policies remain undisturbed. Dr. J. Mark Hiebert, medical director of Alba, becomes assistant to Dr. Theodore G. Klumpp, Winthrop president, devoting himself largely to that company's expanding program of medical research. Other Alba personnel will be absorbed by the surviving company."

As a result of the merger, Fairchild Brothers and Foster, a wholly owned subsidiary of Alba, has become a wholly owned subsidiary of Winthrop.

Case Reports

SYSTEMIC TOXIC EFFECTS CAUSED BY TOPICAL APPLICATION OF SULFANILAMIDE IN THE PERITONEAL CAVITY

MARTIN J. LOEB, M.D., New York City

ACUTE hemolytic anemia resulting from sulfanilamide was first described by Harvey and Janeway.¹ Since then many others have from time to time reported cases of acute hemolytic anemia as a toxic manifestation of the sulfa drugs.

Long, Bliss, and Feinstein,² in their analysis of patients treated with sulfa drugs, found hemolytic anemia occurring in 2.9 per cent in adults and 8.9 per cent in children. They studied 307 adult cases and 101 children.

Fox and Ottenberg³ reported 4 cases of acute hemolytic anemia following the use of sulfonamide drugs, of which 2 cases were fatal. Their data and scientific analysis are an excellent presentation of the pathologic processes resulting from the toxic manifestations of the drugs.

There are no reports in the literature of toxic effects produced by sulfanilamide applied intraperitoneally. As a matter of fact, from the literature one has the impression that the introduction of sulfanilamide in the peritoneal cavity is a very useful but harmless procedure. It is for this reason that this case is reported.

Thompson, Brabson, and Walker,⁴ in their paper on the "Intra-Abdominal Application of Sulfanilamide in Acute Appendicitis," state: "One has noticed no definite toxic effects from the use of the drug administered in this fashion except some cyanosis, which, though not a constant feature, is usually evident. The nausea and vomiting, if present, have not been sufficiently distinguishable from that to be expected in a convalescent from an appendectomy. There have been no cases of leukopenia or agranulocytosis, but there was one case of jaundice which was felt to be secondary to the streptococcus peritonitis, as it disappeared under the continued administration of sulfanilamide by mouth."

Crile⁵ in his paper on the "Local Use of the Sulfonamide Drugs," poses four questions on the use of the drug. We are interested in his first question: "What dangers attend the too rapid absorption and consequent overdosage of the drug?" His answer is that there is little or no danger from the drugs when they are implanted in wounds. He further states that when the sulfonamide drug is implanted in the peritoneal cavity, absorption may be more rapid than that following its application to wounds, but the blood levels still do not rise so fast or to levels so high as those following the oral administration of equivalent doses. Crile asserts that it is probably dangerous to implant more than 15 Gm. of sulfanilamide in the peritoneal cavity at any one time.

Estrin⁶ reports that in 30 cases of peritonitis complicating appendicitis there were no toxic manifestations from the application of the drug except some mild cyanosis in a few instances.

Mueller⁷ reported a series of cases in which he noticed no systemic toxic effects from the topical use of the drug. The absorption of the drug from the peritoneal cavity depends upon the amount of the drug introduced. Generally speaking, the absorption is very much slower than it is when the drug is given by mouth.

A report of the case is as follows:

Case Report

A. A., 19-year-old boy, was admitted to the hospital on July 25, 1941. The patient was ill for one day before admission. He was operated on under spinal anesthesia and a retrocecal gangrenous appendix surrounded by loops of ileum was found. There was also free pus. The appendix was removed and 8 Gm. of sulfanilamide introduced. The abdominal cavity was drained.

The day after operation, the patient had a temperature of 101.4 F. but showed no untoward symptoms. On the second postoperative day, the patient developed an icteric tint in the eyes and skin. Examination of the abdomen was negative. On the third postoperative day, the patient had marked jaundice with bile in the urine. His hemoglobin went down from 106 per cent preoperatively and 5,300,000 red cells to 70 per cent hemoglobin and 3,550,000 red cells. The patient continued to get worse. He became yellow, pale, and vomited occasionally. He looked toxic.

On the fourth day postoperatively, his hemoglobin went down to 32 per cent and the red blood cells to 1,600,000. He was given a transfusion on that day. After the transfusion, the patient began to rally and to improve gradually. His jaundice disappeared, and his hemoglobin and red blood cells coincidentally rose. On his discharge, about eighteen days postoperatively, the patient had a hemoglobin of 82 per cent and 4,500,000 red cells. It is worth noticing that on the day when his red blood count was the lowest—1,600,000—his white count rose to 28,000 and the young forms to 11 per cent. With a rise of hemoglobin and red blood cells, the young forms diminished. The effect of the drug is therefore a destruction of red cells and not of the hematopoietic system. His icteric index taken on the fourth day postoperatively was 62.4. The Van den Bergh direct was immediate; the indirect, 5 to 8 units. The excretion of hippuric acid calculated on the basis of benzoic acid was 2.31 Gm., slightly below normal (the normal being 3 Gm. of hippuric acid excreted several hours after the intake of 6 Gm. of sodium benzoate). Apparently there was no liver damage. At any rate, whatever liver damage did exist was undoubtedly secondary to the anemia caused by the drug.

From the Surgical Service of Dr. Loeb at the Bronx Hospital.

TABLE 1.—BLOOD EXAMINATIONS (A. A. Hosp. 124598)

Date	July 25	July 27	July 28	July 30	July 31	Aug. 1	Aug. 4	Aug. 11
Hemoglobin	106%	90%	70%	32%	44%	48%	57%	82%
Erythrocytes	5.3M	4.3M	3.55M	1.61M	2.24M	2.6M	2.82M	4.4M
Leukocytes	13,500	15,800	17,400	28,100	18,500	13,400	11,000	9,400
Neutrophils	87%	78%	78%	58%	57%	65%	58%	76%
Eosinophils	...	...	...	1%	...	...	1%	2%
Basophils	...	...	...	...	2%	...	1%	...
Band Forms	...	5%	...	4%	7%	4%	...	...
Lymphocytes	9%	14%	14%	15%	12%	12%	2%	22%
Monocytes	4%	3%	8%	10%	13%	10%	31%	...
Young Forms	...	...	...	11%	5%	6%	7%	...

Summary

The topical application of sulfonamide is not always free from complications. The toxic manifestations in this case began on the second postoperative day and reached their peak on the fourth postoperative day, after which the symptoms began to abate and the patient improved.

It is possible that the transfusion hastened the process of recovery.

1882 Grand Concourse

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ISOLATED FRACTURE OF THE FIRST RIB

Report of Three Cases, Including One with Pseudarthrosis Formation

ABRAHAM G. COHEN, M.D., New York City

IN THE course of routine roentgenographic examinations of the chests of selectees for military service, conducted primarily for the detection of tuberculous lesions, other abnormalities are occasionally disclosed. In a period of two weeks, during which time approximately three thousand examinations were made, 3 cases of isolated fracture of the first rib were detected. In each instance the individual affected was unaware of any symptoms referable to this condition.

Case Report

Case 1.—J. B., aged 22, was noted to have a fracture of the right first rib with moderately extensive callus formation (Fig. 1). Upon questioning, he recalled having been struck by a crane in the right upper chest about three months previously. He had experienced some local pain for several days and on the night after the accident had expectorated a small amount of blood. He had not sought medical attention. At the time of the examination, there were no symptoms or abnormal physical signs.

Case 2.—A. M., aged 25, was found to have a fracture of the left first rib with considerable overriding of the fragments; there was no evidence of callus formation (Fig. 2). On questioning, the only possible causative factor revealed was the fact

that his occupation consisted in carrying heavy cases of bottled beverages, usually on the left shoulder. He had never noticed pain in this region.

Case 3.—R. W., aged 23, was found to have a linear break in the continuity of the right first rib; the edges were exceptionally smooth. There was no evidence of callus formation (Fig. 3). He gave no history of direct or indirect trauma nor did he recall any previous pain. It was the impression of several roentgenologists who examined the film that the picture was that of an old fracture with resultant pseudarthrosis.

Discussion

Because of its relatively protected position, as well as its smallness in size, the first rib is fractured much less frequently than most of the others.¹ Hinton and Steiner² analyzed a large series of rib fractures and found the first rib to have been affected 14 times out of 393 on the right and 8 out of 414 on the left. Breslin,³ reviewing the literature through 1933, noted 27 cases of isolated fracture of the first rib and added 5 of his own. Since then about 26 additional cases have been reported⁴⁻¹⁷ although the literature in some languages has not been reviewed. In 4 cases both first ribs were fractured.^{4,9,13,17}

It is generally agreed that this uncommon fracture is not ordinarily caused by direct trauma. Lane is quoted^{2, 13} as having mentioned 3 possible mechanisms: (1) indirect violence, (2) direct force from behind, and (3) force through the manubrium sterni. Sudden tension on the rib by pull of the neck

From the U.S. Army Induction Station, Trenton, New Jersey.

Major, Medical Corps, U.S. Army, now with 210th General Hospital.

Released for publication by the War Department Manuscript Board, which assumes no responsibility, other than censorship, for the contents of this article.



FIG. 1. Case 1. Fracture of right first rib with callus formation



FIG. 2. Case 2. Fracture of left first rib with overriding of fragments

muscles, particularly the scalenus anticus, frequently is mentioned as a cause.^{3,7,14} In the cases reported here, the fracture in one seemed to have been the result of a direct blow to the upper anterior chest. In another, a possible causative factor was the muscle strain incidental to the patient's having carried heavy weights on his shoulder. In the third, no cause is apparent.

Although in most instances pain is noted, this symptom is frequently absent or is disregarded by the patient, as is so strikingly illustrated by the 3 cases reported. The lesion rarely presents abnormal physical signs and ordinarily is detected only on roentgenographic examination, usually made either routinely or with other abnormalities in mind. Even then, it may be missed unless special views are taken, since the first rib often is obscured at least partly by overlying soft or bony structures.

In addition to the complications common to fractures of any rib, such as pneumothorax, fracture of the first rib, because of its location, may result in other disturbing sequelae. Oldfield⁹ described a case resulting in fatal puncture of the subclavian artery. The formation of callus in an already crowded space may lead to encroachment upon nerve trunks. Thus, Outland and Hanlon¹³ reported a case in which evidence of brachial plexus damage appeared a few months after the injury and Breslin⁴ noted the appearance of a Horner's syndrome after seven weeks. In none of the 3 cases reported herein was there evidence of injury to a nerve trunk. None of the films showed a pneumothorax, and the costophrenic sinuses in all cases were sharp and clear.

Von Sassen¹² described a case in which the history suggested that the first rib had been injured three years previously as a result of spear-throwing. The roentgenogram showed a line of cleavage through the rib; the edges of the fragments were smooth and the appearance was that of a typical pseudarthrosis. This is of interest in view of Case 3. The *Index Medicus* lists another case¹⁷ the text of which could not be obtained.

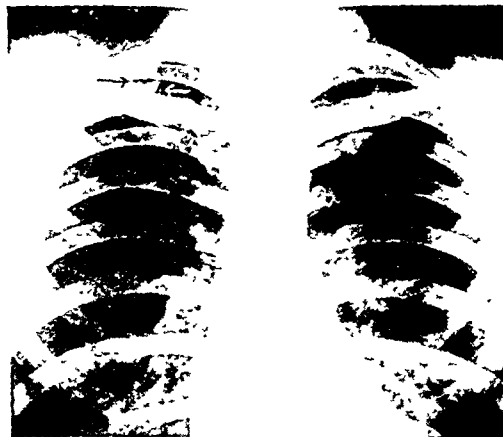


FIG. 3. Case 3. Pseudarthrosis formation in right first rib probably due to previous fracture.

Summary

1. In the course of routine roentgenographic chest examinations, 3 cases of isolated fractures of the first rib were noted.
2. In one of the cases, the roentgen picture was that of pseudarthrosis.
3. In no case was the patient aware of symptoms referable to this condition.
4. Fractures of the first rib are uncommon; they are rarely caused by direct trauma.
5. Injury to the underlying nerve trunks or large blood vessels is an occasional complication.

9 East 96 Street

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TWO CASES OF TYPHOID FEVER TREATED WITH SULFAGUANIDINE

D. D. ALTHOUSE, M.D., and MARY KIRKWOOD, M.D., Auburn, New York

THE following two cases of typhoid fever were admitted to the Auburn City Hospital Medical Service, September 5, 1941, from one of the small country villages.

Case 1.—G. B., aged 11 years, became ill August 21, with fever and diarrhea, followed eight days later by a rash. Two days before admission *Bacillus typhosus* was cultured from the stools, and the Widal test was positive for *B. typhosus* infection.

On admission the boy was acutely ill, with flushed face, temperature 103 F. (R), pulse 80. The abdomen was moderately distended, and there was generalized tenderness to palpation. A papular rash appeared on the abdomen and thighs.

On September 6, the stools were positive for *B. typhosus* culture. The patient's condition continued to be unchanged, except for an increase in temperature and more abdominal distention.

On September 11, the patient was given sulfaguanidine 0.5 Gm. every four hours, day and night. The dose was reduced to every six hours on September 12 because of a fall in the leukocyte count, and on September 14 it was stopped entirely.

Clinically the case improved after the administration of the drug, as evidenced by the downward trend of the temperature curve and less abdominal distention and tenderness.

The stools, which were positive daily, became negative for *B. typhosus* on September 18, and with the exception of one day, September 20, remained negative until October 1. The sulfaguanidine was again given in doses of 0.5 Gm. every four hours and reduced to every six hours on October 3 and to every eight hours on October 4, being stopped completely on October 5. Eight stool examinations, repeated every second day, were reported negative, following the administration of the sulfaguanidine.

On October 9 the patient had sufficiently recovered to be up in a chair and also to be placed on a regular diet.

Case 2.—The history of the second case of ty-

phoid treated with sulfaguanidine is as follows:

H. B., aged 13 years, became ill August 22, 1941, with diarrhea and fever, which continued until his admission to the hospital on September 5.

On admission the patient was seriously ill, with a temperature of 105 F. (R), pulse 100, abdomen moderately distended with generalized tenderness, and papular erythematous rash over the thighs and abdomen.

On September 6, his stools gave a positive culture for *B. typhosus* and a negative one for the para organisms. A positive Widal test for *B. typhosus* was taken.

The patient daily became more ill, with chills and a septic type of temperature. On September 11, it was decided to give him sulfaguanidine, 0.5 Gm. every four hours day and night. After twenty-four hours, this was reduced to every six hours, and in forty-eight hours administration of the drug was stopped because of a decrease in his urinary output. At this time the patient was clinically improved, with less abdominal distention and tenderness and a downward temperature curve. Daily cultures of the stools and urine were positive until September 15. The stools became negative on this date, repeated cultures of both the stools and urine remaining negative.

The patient improved daily and was allowed out of bed on October 9. He was discharged on October 20.

It is interesting to note that in this case the sulfaguanidine apparently had no effect per se on the temperature. It was only after the stools became negative that the temperature curve turned downward and fell gradually to normal by lysis.

We feel from these two cases that sulfaguanidine has a definite value in the treatment of typhoid fever, for it evidently shortened the duration of these cases, the course of the disease apparently being reduced by the sterilization of the intestines.

STUTTERING AGGRAVATED BY SERVICE IN THE ARMY

According to Dr. James Sonnett Greene, medical director for the National Hospital for Speech Disorders in New York City, the number of breakdowns of service men who stutter is increasing. This is due, Dr. Greene says, to the fact that the Army continues to put stutters in active service instead of non-combatant duty.

In 1942 the hospital treated the largest number of patients in its history, a total of 3,515. Of these the

majority were stutters, and a growing number of the patients are soldiers.

Dr. Greene pointed out that cases of stuttering are chiefly due to nervous and mental disorders, which render the sufferer as unfit for service as men with more obvious physical defects. Not only is the stutterer subject to permanent impairment if kept on in the Army, but also he is not in a position to be of service from a military standpoint.

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., chairman (428 Greenwood Place, Syracuse); George Baehr, M.D.; and Charles D. Post, M.D.

Nervous Conditions Associated with Warfare

A POSTGRADUATE lecture arranged for the Tompkins County Medical Society, to be held Tuesday evening, March 16, at 8:30 P.M., at Tompkins County Memorial Hospital in Ithaca.

"Nervous Conditions Associated with Warfare" is the title of the lecture, to be given by Foster

Kennedy, M.D., professor of clinical medicine (neurology), Cornell University Medical College, New York City. It is a cooperative endeavor between the New York State Department of Health and the Medical Society of the State of New York.

Treatment of Common Diseases

UNDER the direction of Dr. Clayton W. Greene of the University of Buffalo School of Medicine, a series of two lectures was presented in February to the Madison County Medical Society on the "Treatment of Common Disease." The lectures took place at 8:30 P.M. in the Hotel Oneida in Oneida, New York. Subjects and speakers were as follows:

February 11—"The Management of Arthritis, Acute and Chronic"

L. Maxwell Lockie, M.D., professor of therapeutics, University of Buffalo School of Medicine.

February 23—"Renal Lesions Simulating Other Maladies"

Clayton W. Greene, M.D., professor of medicine, University of Buffalo School of Medicine

Medical Aspects of Chemical Warfare

A POSTGRADUATE course in the "Medical Aspects of Chemical Warfare" was held on February 16 for the Tompkins County Medical Society in the Tompkins County Memorial Hospital in Ithaca.

The course was arranged by the Council Committee on Public Health and Education in

cooperation with the Health Preparedness Commission of the State War Council. Speakers included: Neal E. Artz, Ph.D., associate professor of physiological chemistry, Syracuse University College of Medicine; and John J. Bourke, M.D., state medical officer, New York State Health Preparedness Commission.

DIMOUT LOWERS DRIVERS' VISION, DEVICE DISCLOSES

Driver vision is reduced 40 to 60 per cent by the dimout, the New York University Center for Safety Education, at 8 Fifth Avenue, reported following examination of 1,000 drivers with the dimometer, a laboratory machine that simulates a dimmed-out street.

The dimometer, designed by Dr. Charles C. Hawkins, research assistant at the center, is a scale reproduction of a typical cross-town block. Housed in a box three feet long by eighteen inches wide, it contains a street, sidewalks, an intersection, an alley, five cars, five pedestrians, and three street lamps. The scale is one inch to six feet.

Lighting in the dimometer is controlled by a rheostat and was determined by the candlepower average of typical streets.

The subject looks through a reducing lens at the street scenes and is graded according to the number of true-to-scale pedestrians he sees cross the block on which he is theoretically driving. The subject scores only if he sees the pedestrian before he crosses the street. Less than 10 per cent of the thousand persons tested, all New York City civil service

employees, succeeding in making perfect scores.

Dr. Herbert J. Stack, director of the center, said the driver's peripheral vision—the ability to distinguish objects at angles from the eyes—is practically zero in the dimout. For this reason, he said, pedestrians should be particularly cautious before stepping from the curb into the line of traffic.

Even the most alert driver would be no more than 80 per cent efficient in dimout conditions, Dr. Stack said, emphasizing the necessity for lowered speeds.

The Center for Safety Education estimates that the rate of traffic deaths is 20 per cent higher on the basis of total vehicle-miles driven.

"There is a danger zone approximately forty feet in front of any vehicle proceeding at twenty miles an hour," Dr. Hawkins said. The "danger zone" is determined by the reaction distance for the driver to see the pedestrian and set his brakes—twenty feet—and the distance needed to stop the vehicle—another twenty feet—he explained. At thirty miles an hour, probably more nearly the average speed of New York taxicabs, the danger zone is eighty feet.

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Ginsburg, with discussion by Dr. Samuel Gitlow; "Pernicious Anemia with Cord Symptoms," by Dr. Max Weiss and Dr. Nathan Rosenthal; "Meningitis of Otic Origin: Mastoidectomy—Recovery," by Dr. William M. Bronson, with discussion by Dr. Hyman D. Silver; "Colectomy," by Dr. Louis Sheinman and Dr. Benjamin Sherwin.

. . .

The Bronx Otolaryngological Society, Inc., will meet as the guests of the Otolaryngological Section, Brooklyn Academy of Medicine and Medical Society County of Kings, at Kings County Medical Building on March 10 at 9:00 p.m., to hear the following program: "Recent Concepts of Rhinoplasty in Nasal Cartilage Deformities," by Dr. Abraham P. Matusow, of the Bronx, with discussion by Dr. Samuel Fomon (by invitation); "Petrositis," by Dr. Philip Sacks, of the Bronx, with discussion by Dr. Robert L. Moorhead, of Brooklyn.

Broome County

A new method of treating burns, developed especially for use on the battlefield, was explained by Dr. Kenneth L. Pickrell, instructor in surgery at the Johns Hopkins Hospital, Baltimore, to members of the Broome County Medical Society at their meeting in the Binghamton City Hospital on February 9.

Called the "film treatment," the method employs "pre-formed sulfadiazine films or bandages" which can be applied to burns or injured surfaces, Dr. Pickrell said.

"Content of the newest of sulfa drugs is so high," he said, "that it is impossible for bacteria or germs to develop or spread." It is now being used in all the larger medical centers, he stated.*

Dutchess County

Dutchess County Medical society met at the Hudson River State Hospital on February 10 at 8:30 p.m. Dr. Emil A. Stoller, the new president, was in charge. The scientific program included a paper on "Surgical Treatment of Coronary Disease," by Dr. Samuel A. Thompson, of New York City, and Dr. Milton J. Rasbeck.*

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The following is a list of the committees for the county society for the ensuing year:

Public Health, Public Relations, and Publicity—Dr. Scott Lord Smith, Dr. E. F. Powell, Dr. Gilbert MacKenzie.

Legislative—Dr. Earle W. Voorhees, Dr. C. O. Davison, Dr. H. P. Carpenter.

Library—Dr. A. L. Peckham, Dr. Phebe Brown, Dr. W. F. Locke.

Economics—Dr. Donald Malven, Dr. A. W. Thomson, Dr. Max M. Simon, Dr. Frank Gagan, Dr. Howard Townsend.

Cancer—Dr. Helen Palliser, Dr. Jane Baldwin, Dr. George Lane, Dr. John McGrath.

Program—Dr. W. H. Meyer, Dr. J. M. Jacobus, Dr. Clifford A. Crispell, Dr. John Kerrigan, Dr. Leo Murphy.

T. E. R. A. (City)—Dr. John I. Cotter, Dr. Joseph Cummings, Dr. F. Harold Crispell, Dr. James J. Toomey, Dr. F. M. Hedgecock.

T. E. R. A. (County)—Dr. S. E. Appel, Dr. Walter Wicks, Dr. George Jennings, Dr. E. Gordon MacKenzie, Dr. G. S. Tabor.

* Asterisk indicates that item is from local newspaper.

Medical Expense Fund, Inc., of New York, is ready to serve groups in Dutchess County, having become well established in the Hudson Valley area which it embraces, according to Dr. Chester O. Davison, of Poughkeepsie, local trustee of the corporation.

Dr. Davison pointed out that the Medical Expense Fund, Inc., has now been established for three years. It has been endorsed by the Dutchess County Medical Society and by the Medical Society of the State of New York.*

. . .

Dr. W. G. Thompson has established an office for the general practice of medicine and surgery in the former office of Dr. H. S. Bulkeley in Rhinebeck.

Dr. Thompson is a graduate of Duke University School of Medicine. He served an internship at White Plains Hospital and recently completed a general residency at that institution.

Essex County

At a special meeting of the Essex County Public Health Committee held on February 3 a venereal disease control plan for the county was considered. Attending the session were Dr. James H. Lade, director of the Division of Syphilis Control of the New York State Department of Health; Dr. S. A. Volpert of Lake Placid, president of the Essex County Medical Society; and Dr. Glidden, secretary of the society.*

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Of the seven physicians that Essex County declared available by the Office of Procurement and Assignment, now commissioned officers are: Dr. James Walsh, of Ticonderoga; Dr. Simpson, of Port Henry; Dr. V. F. Krakes, of Keeseville; and Dr. H. T. Booth, of Schroon Lake.

Dr. Knapp, of Ticonderoga, has been appointed to head the new tuberculosis committee for Essex County.

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Officers of the county society are: president, Dr. S. A. Volpert; vice-president, Dr. George Knapp; secretary and treasurer, Dr. James E. Glavin; censors, Dr. A. L. Hayes; Drs. John Miller and T. J. Cummins; delegate to State Convention, Dr. J. A. Geis; alternate delegate to State Convention, Dr. T. R. Cummins; delegate to the Fourth District Branch, Dr. Edwin C. Johnson; alternate delegate to the Fourth District Branch, Dr. Robert H. Gray.

—J. E. GLAVIN, M.D.

Fulton County

Dr. Arthur C. Hagedorn of Gloversville, who has rounded out a half century of service in his profession, was given a testimonial dinner at the Hotel Johnstown on January 27, by members of the Fulton County Medical Society.

He is one of the few M.D.'s in his part of the state to attain this distinction. During the dinner and meeting, officers were elected for the ensuing year.

The program was opened with a dinner served at 6:30 p.m., over which Dr. A. R. Wilsey, of Gloversville, president of the society, presided.

Following the dinner Dr. Wilsey, a great nephew

Medical News

War Sessions by College of Surgeons

NEW developments in military and civilian medical and hospital service will be brought to members of the medical profession at large and to hospital representatives through a series of twenty War Sessions, beginning March 1, to be held throughout the United States under the sponsorship of the American College of Surgeons, with the cooperation of other medical organizations and of the Federal medical services.

Each War Session will consist of an all-day program, lasting from 9:00 A.M. to 10:00 P.M., including luncheon and dinner conferences. There will be eight meetings in each session, four of which will be open to the entire assembly, with the remainder divided into two meetings each for physicians and for hospital representatives. Subjects will be similar in the different localities, but some of the speakers will be different in the different states and service commands. Nationally known representatives of the United States Army, the United States Navy, the United States Office of Civilian Defense, the United States Procurement and Assignment Service, and the United States Public Health Service will address the meetings and will lead discussions, in addition to participation by prominent leaders in civilian medical practice and hospital service.

Topics to be discussed relating to military medicine will include care of the ill and injured in combat zones and after their evacuation. The newer types of injuries encountered in this war, such as crush and blast injuries, will be especially considered,

together with prevention and treatment of infections, and treatment of burns, shock, and injuries of specific parts of the body. Anesthesia, plastic surgery, and the psychoneuroses of war will be some of the other topics. Problems of civilian medical care in wartime which will be discussed will include the responsibilities of individual doctors and hospitals; personnel problems of hospitals; organization of emergency medical services; maintaining adequate supplies, furnishings, and equipment; maintenance of high standards of medical and nursing education and of hospital service in general; hospital public relations; and administrative adjustments in professional staffs of hospitals. The opening meeting of each session will be devoted to discussion of "Medical and Surgical Aspects of Chemical Warfare," led by a representative of the United States Office of Civilian Defense, and the closing meeting, a panel discussion on problems in wartime civilian medical practice, will be led by representatives of the United States Public Health Service, the American College of Physicians, the American Medical Association, medical services in industry, and the American College of Surgeons. Some of the topics for consideration at this meeting will be endemic and epidemic diseases, including tropical diseases; medical services in industry; medical and surgical practice; and supplementary postgraduate education for medical officers and civilian doctors.

The schedule for the War Sessions is as follows:

Date	City	States and Provinces	Headquarters
March 1	St. Paul	Minnesota, North Dakota, South Dakota	Lowry Hotel
March 3	Milwaukee	Wisconsin, Illinois	Schroeder Hotel
March 5	Indianapolis	Indiana, Kentucky, Ohio	Claypool Hotel
March 8	Detroit	Michigan	Statler Hotel
March 10	Pittsburgh	Pennsylvania, West Virginia	The William Penn
March 12	Buffalo	New York, Ontario	Statler Hotel
March 15	Boston	Massachusetts, Connecticut, Maine, New Hampshire, Rhode Island, Vermont	Statler Hotel
March 17	Brooklyn	New York City, Delaware, New Jersey	St. George Hotel
March 19	Richmond	Virginia, District of Columbia, Maryland	John Marshall Hotel
March 22	Charlotte	North Carolina, South Carolina	Charlotte Hotel
March 24	Birmingham	Alabama, Florida, Georgia	Tutwiler Hotel
March 26	Memphis	Tennessee, Arkansas, Mississippi	Peabody Hotel
March 29	Houston	Texas, Louisiana	Rice Hotel
April 1	Kansas City	Kansas, Missouri, Oklahoma	President Hotel
April 3	Omaha	Nebraska, Iowa	Fontenelle Hotel
April 6	Denver	Colorado, New Mexico, Wyoming	Cosmopolitan Hotel
April 9	Salt Lake City	Utah, Idaho	Utah Hotel
April 13	Los Angeles	Southern California, Arizona	Biltmore Hotel
April 16	San Francisco	Northern California, Nevada	Fairmont Hotel
April 20	Seattle	Washington, Montana, Oregon, British Columbia	Olympic Hotel

Dr. Irvin Abell, chairman of the Board of Regents of the College, in announcing the War Sessions, said that although participating states and provinces for each meeting have been designated to facilitate arrangements, there will be no geographic restriction on attendance, and those who plan to attend may select the place and time which are most convenient.

The American College of Surgeons canceled its 1942 national meeting and is holding in abeyance plans for a Clinical Congress in 1943, in the meantime offering the regional meeting plan provided by the War Sessions to save the time of the doctors and other personnel, and to minimize transportation difficulties, without unduly sacrificing during wartime the benefits of medical assemblies.

County News

Bronx County

The next meeting of the North Bronx Medical Society will be held at Elmsere Hall, 284 East 170th Street (JERome 6-8570), March 4, 1943, at 8:30 P.M. The following program has been announced:

"Hematometra in a Woman of 60 Following Stilbestrol Treatment," by Dr. Jacob Juskowitz, with discussion by Dr. Henry Krauskopf; "Nephritic Hypertension in a Boy of 14," by Dr. Tobias

directors of Lowville General Hospital. A director and vice-president of the Croghan National Bank since its inception in 1917, he has also been health officer of the town of New Bremen and is the only civil-service-appointed health officer in Lewis County. He was born in Switzerland, of German parentage, on January 31, 1863. He studied in University of Leipsic, and at the age of 19, came to the U.S. and spent three years in Indiana, then returning to New York and entering New York University, from which he graduated in the medical profession in 1887. He then came directly to Lewis County, where he entered practice with the late Dr. W. W. Jameson, for a few years in the village of New Bremen, and in 1891 opened practice in the village of Croghan.—*Lowville Republican*, February 4.

Nassau County

Dr. J. Rembrandt Helfrick is returning to local medical practice after duty with the United States Army, and has announced the reopening of his office at the corner of Central Drive and Main Street, Fort Washington, where he has been located for the past five years.

Dr. Helfrick, who volunteered for service last spring, has been stationed at the hospital at Fort Monmouth, New Jersey, and at Fort Devens, Massachusetts.

Dr. J. P. Hoguet, who was responsible for the medical protection of the tens of millions of visitors to the New York World's Fair in 1939 and 1940, has joined Republic Aviation as medical director of the Farmingdale plant.

Dr. Hoguet took charge of the hospital staff as successor to Dr. F. J. Roemer, who recently resigned.*

New York County

Under the sponsorship of the New York Academy of Medicine, a conference on maternal health and child welfare was held on February 19 at the Hotel Roosevelt in New York City. The conference was part of the celebration that marked the centenary of the publication by Oliver Wendell Holmes of his paper on the contagiousness of puerperal fever.

Speaking at the morning session on the theme "The Family Faces the Future" were Mr. Lawrence K. Frank, chairman of science, National Resources Planning Board; Dr. A. A. Brill, lecturer in neurology and psychiatry, College of Physicians and Surgeons; Mr. Stanley P. Davies, executive director, Community Service Society of New York, and Dr. Frank Fremont-Smith, medical director, Josiah Macy, Jr., Foundation.

Afternoon speakers included Dr. Louis I. Dublin, chief statistician and third vice-president, Metropolitan Life Insurance Company; Dr. Alan F. Guttmacher, associate professor of obstetrics, Johns Hopkins University; and Miss Hazel Corbin, general director, Maternity Center Association, Inc.

A symposium on the theme "Meeting the Problems of Maternity Welfare and Child Health Along Many Fronts" was presented by the following speakers: Miss Alta Dines, Community Service Society; Miss Frances Taussig, Federation for the Support of Jewish Philanthropic Societies; Mrs. Sidonie M. Gruenberg, Child Study Association of America; Mr. D. Kenneth Rose, Planned Parenthood Federation of America; Dr. Thomas Patrick, New York Urban League; Dr. Leona Baumgartner and Dr. Elizabeth Gardiner, New

York City Department of Health; Mrs. Shepard Kreh, Maternity Center Association; and Dr. Herbert B. Wilcox, New York Academy of Medicine.

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The monthly meeting of the county society was held on February 23 at 8 15 P.M. at the New York Academy of Medicine.

Industrial medicine was the general subject of the scientific session, the program for which was: "Odds and Ends of Industrial Medical Practice," by Loyal A. Shoudy, chief of the medical service of Bethlehem Steel Company, Bethlehem, Pennsylvania; "Typical Occupational Disease Hazards in Industry," by May R. Mayers, Department of Industrial Hygiene, New York State Department of Labor; "Preplacement Physical Examination," by Russell C. Kimball, assistant medical director, Consolidated Edison Company.

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Leaders in public health, including Mayor F. H. LaGuardia, attended a luncheon at the Academy of Medicine on January 21 to pay tribute to Dr. John L. Rice, former Commissioner of Health.

The achievements of Dr. Rice during his term as Commissioner were praised by the Mayor. The influence of Dr. Rice's work beyond this city and throughout the United States was described by Dr. C.-E. A. Winslow, professor of public health of Yale University School of Medicine.

Dr. Ernest L. Stebbins, who has succeeded Dr. Rice as Commissioner of Health, described the solid foundations in administration of the program of the Department made by Dr. Rice and on which Dr. Stebbins is building.

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Health Commissioner Ernest L. Stebbins has declared that closing of New York's laundries would produce a health hazard for the City by increasing the danger of infectious diseases.

Discussing the War Petroleum Administration's recent order classing laundries as a "nonessential industry" as far as the use of fuel oil is concerned, Dr. Stebbins said that even if the oil curtailment reduces laundry service by only 40 per cent, there will be a decline in the City's standards of health and cleanliness, as the majority of residents in the metropolitan area depend on laundries.

Onondaga County

Dr. Charles D. Post has been appointed by T. Aaron Levy, president of the Onondaga Health association as chairman of its tuberculosis committee for 1943.

The problems to which the committee is expected to devote special attention will include local means of promoting tuberculosis case-finding and desirable measures for the educational, vocational, and social rehabilitation of tuberculosis patients after their disease has been arrested. A third problem will relate to the importance of suitable control over nonhospitalized tuberculosis patients.

Other members of the committee will be Dr. William E. Ayling, Dr. Eugene W. Bogardus, Miss Ellen L. Buell, R.N., Dr. Edward B. Bukowski, Commissioner H. Burton Doust, Henry M. Files, Albert L. Halbritter, Dr. L. M. Hickernell, Dr. Robert D. Johnson, Arthur E. Jones, Mrs. William A. Mackenzie, J. F. Sabine Meachern, Dr. O. W. H. Mitchell, Alexis N. Muench, Richard H. Pass,

of the honored guest, presented Dr. Hagedorn with a bouquet of 50 carnations, after which he turned the meeting over to Dr. George Lenz, who acting as toastmaster, presented Dr. Hagedorn with a scroll on which were inscribed the names of each member of his class at Albany Medical School. Dr. Hagedorn was graduated from Albany Medical School in 1892, and of the 54 classmates who graduated with him, all but 15 have passed on.

After the presentation Dr. Hagedorn responded with a talk in which he went back over the first years he practiced the profession. He told of the dirt streets in Johnstown and Gloversville and of the struggles doctors of that time had to reach their patients in winter, often driving miles through snow and cold in a horse-drawn sleigh.

Following the speaking program a short business session was held, during which the following officers were elected: Dr. A. R. Wilsey, president; Dr. Dominic Battaglia, vice-president; Dr. L. Tremante, secretary; Dr. A. H. Sarno, treasurer-board of censors, Dr. W. Shaw, Dr. F. G. Calder, and Dr. B. G. McKillip; Dr. S. C. Clemans, delegate to the State Convention; Dr. B. A. Winne, alternate delegate to the State Convention.*

Herkimer County

The February meeting of the county society took place on February 9 in the Herkimer County Historical Society building.

Dr. Robert Ainslie, of Ilion, spoke on medical work in China. A movie on "Peptic Ulcer" was shown.*

Kings County

The Medical Society of the County of Kings and the Academy of Medicine of Brooklyn held a stated meeting on February 16 at 8:45 P.M. in the McNaughton Auditorium.

The scientific program featured three addresses: "Experiences Aboard the U.S.S. *Vincennes*," by Lt. Com. Samuel A. Isquith, U.S.N., Brooklyn; "Can the Doctor's Bill Be Insured?" by Mr. Wendell A. Millman, associate actuary, Equitable Life Assurance Society of the United States, New York City; and "Nonprofit Medical Expense Insurance," by Mr. Louis H. Pink, president, Associated Hospital Service of New York, Inc., New York City.

There was also the presentation of a medal and scroll to Dr. William C. Meagher, president of the county society and the Academy of Medicine of Brooklyn for the year 1942

"War nerves" is the latest detail in military medicine to be studied at the Long Island College of Medicine in preparation for active service with the armed forces, according to college authorities.

Merchant seamen who have suffered torpedoing and exposure on rafts or in open boats have become a major source of information on "war nerves" for physicians. These cases are studied in hospitals, clinics, and rest centers affiliated with the medical school.

Dr. Howard W. Potter, clinical professor of neurology and psychiatry at the college, who is also medical supervisor of the Port of New York area for the War Shipping Administration and United Seamen's Service, Inc., has been arranging for the students to give special study to these cases.

Military medicine is stressed at the college, with at least one phase of it taught in every department.

All but 15 of the 374 male students hold commissions in the various services.

In addition to the study of "war nerves" the study of burns, shock, traumatic injuries, infections, fatigue, venereal diseases, war gases, and frostbite as applied in military medicine receive special emphasis. Military psychiatry is stressed because of the greater demands which warfare is making on the soldier today.*

The appointment of Dr. Duncan W. Clark, of the department of medicine of Long Island College of Medicine, Brooklyn, as assistant dean of the college has been announced. He succeeds Alfred R. Crawford, who has been named assistant to the president, Dr. Jean A. Curran.

We reprint in full below the account of the organization of the "Committee on Psychosomatic Medicine," which appeared in the February issue of the *Bulletin* of the Medical Society of the County of Kings:

In recent years, contributions in the field of psychosomatic medicine have become potent weapons in the therapeutic armamentarium of the practicing physician.

The New York Hospital, Mount Sinai Hospital, the Presbyterian Hospital, and others in Manhattan have as an integral part of their organizations a group of men trained in psychiatry. This results from the pressure of the reported 35 per cent (most conservative estimate) to the more likely 70 per cent of all hospital admissions who have been shown to suffer from psychosomatic disease. The enlightened clinician will recognize the subtlety with which an emotional upheaval may be expressed by nervous stomach, pain around the heart, cardiac arrhythmias, colitis, menstrual disorders etc. Without psychosomatic therapy the patient will not get well.

In order to get started, a committee was organized under the auspices of the Kings County Medical Society known as "The Committee on Psychosomatic Medicine." The purposes of the committee are:

- 1 To teach the doctors of our society these more recent therapeutic concepts
- 2 To establish in our hospitals personnel trained in psychosomatic psychiatry who will be available for therapy and research.

The committee consists of a chairman who is an internist with psychoanalytic training, two psychiatrists, a cardiologist, urologist, gastroenterologist, gynecologist, and others will be added as the need arises.

The office of chairman was assigned to Dr. A. J. Nathaniel Rosen, the psychiatrists are Doctors Sands and Potter, the section on obstetrics and gynecology will be handled by Dr. Alfred C. Beck, urology by Dr. Leo Drexler, gastroenterology by Dr. Henry Frederick Kramer, cardiology by Dr. Louis Sigler.

The educational program will be launched with a paper by Dr. Lawrence S. Kubie on April 2, 1943, as one of the regular Friday afternoon lecture series. His subject matter will consist of physiological mechanisms by which psychosomatic illness expresses itself.

Lewis County

Dr. Paul H. Von Zierolshofen, more familiarly known as "Dr. Paul," quietly observed his eightieth birthday, at his home in Shady Avenue in Croghan, where he has resided the past fifty years.

He is believed to be the oldest practicing physician in Lewis County and is still kept busy attending numerous patients in his office daily. He is enjoying fairly good health. He is a member of the Lewis County Medical Society, of which he was formerly president, and he is still a consultant on the staff of the St. Lawrence State Hospital, Ogdensburg. He is also a member of medical board of

Hospital News

Largest Army Hospital Opened

OPERATED for several months in complete secrecy, the Halloran General Hospital on Staten Island was recently revealed by the Army to be its largest hospital, intended for treatment of soldiers wounded in Europe, Africa, and the South Pacific.

The new development, composed of one large, seven-story medical and surgical building, and several smaller buildings for wards, mess halls, garages,

greenhouses, auditorium, and recreational facilities, was originally planned as an institution for mental defectives and was taken over by the Army from the New York State Department of Mental Hygiene.

The hospital is named for Col. Paul S. Halloran, who was long connected with the Army Medical Corps. Director of the hospital is Col. Ralph G. DeVoe, who is assisted by Major George Vassos, formerly a surgeon at Bellevue Hospital.

Bachelor of Medicine for Nurses Suggested

THERE is a growing need for an expansion in the training of nurses, according to Dr. Hugh Cabot, writing in *The Modern Hospital* for February. Dr. Cabot believes that the nurse's field should extend beyond the scope of mere hospital care and should give her an opportunity to do work in preventive medicine and positive health technic.

"I have long believed," Dr. Cabot writes, "that women are better suited than men to studying environment, giving appropriate advice, and feeling their way along deftly in complicated and varying conditions of environment. All these things used to be done in a simpler world by the general physician, but...our knowledge in all the fields broadly covered by the phrase 'preventive medicine' has increased to such an extent that, with proper and detailed supervision, much disease can be permanently avoided and many... [unwholesome] condi-

tions... which undermine health... can be headed off and replaced by positive health. However, these things cannot be done by the personnel now available."

Dr. Cabot goes on to say that women trained in this work would be "more involved in what is properly known as the practice of medicine than are the trained nurses of today. We, in this country, have made little use of the degree, Bachelor of Medicine."

"This would, I believe, be an appropriate indication of their relation to medical service as a whole. It would suggest that they did not have the elaborate scientific training of the physician but, at the same time, would make it abundantly clear that they were involved in the practice of medicine and were essential cogs to anything approaching complete medical care in step with modern science."

At the Helm

Charles S. Andrews has been re-elected president of the Lawrence Hospital in Bronxville.

Other officers re-elected were: Thomas B. Gilchrist, vice-president; J. Robertson MacColl, Jr., secretary; and Frankland F. Stafford, treasurer.*

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Harold B. Fuller has been re-elected president of the Chenango Memorial Hospital in Norwich.

In addition to President Fuller, directors at their organization meeting named Charles R. Kroeger, first vice-president; Carl E. Fibley, second vice-president; L. Forrest Hotchkiss, treasurer; and W. A. Seely, secretary.*

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Harrison B. Wright, of Rockville Centre, is the new president of the South Nassau Communities Hospital Association, having been elected by the board of directors to succeed Mrs. Walter R. Hood.*

. . . .

Mrs. George W. Battersby, of Gouverneur, who has been associated with the work at Stephen B. VanDuzee Hospital for some years, has been chosen by the hospital board to become acting superintendent of the institution.

Mrs. Battersby succeeds Miss Mildred Higgs.*

* Asterisk indicates that item is from local newspaper.

The board of trustees of Ossining Hospital have re-elected Walter L. Johnson, of Briarcliff Manor, as chairman of the board, and James H. Carter, of Scarborough, as president of the Association.

Other officers of the Association chosen last night are Wallace T. Miller, vice-president, succeeding Mrs. Walter B. Mahony; John J. Murray, re-elected secretary, Ralph Roberts, re-elected treasurer; and Stanley E. Young and George F. Hoag, re-elected assistant treasurers.*

. . . .

Miss Leoni H. Jackson has been appointed superintendent of nurses of the Long Beach Hospital, succeeding Mrs. Edward Johnson.*

. . . .

Dr. M. J. McGrath has been elected president of the Oswego Hospital staff. Other officers include: Dr. Milton W. Kogan, vice-president; Dr. W. McD. Halsey, secretary; and Dr. D. D. O'Brien, treasurer.*

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Dr. G. Marcellus Clowe is the newly appointed chairman of the medical board of Ellis Hospital in Schenectady. Dr. Clowe, who will represent the division of medicine, succeeds Dr. Lester Betts, who has served as chairman for the past three years.

Dr. Clowe has been president of the hospital staff for the past year and is senior attendant on the medi-

Dr. Edward J. Wynkoop, and Dean Herman G. Weiskotten. Arthur W. Towne, secretary of the association, is to serve as secretary.

Dr. Post is chairman of the committee on diseases of the chest in the Medical Society of the State of New York.

Announcement also was made by Mr. Levy of the personnel of the association's executive committee, of which he acts as chairman. Those serving on the committee are Dr. Eugene W. Bogardus, Miss Buell, Donald E. Chappell, Thomas J. Corcoran, E. Philip Crowell, Commissioner Doust, Dean Harry S. Ganders, Dr. J. G. Fred Hiss, Dr. Thomas F. Laurie, Mrs. Mackenzie, Mr. Meachem, Dr. Mitchell, Dr. Post, and Dean Weiskotten.*

Orange County

Dr. Anthony J. Manzella, former Newburgh health officer, has been made available for public health service through the procurement and assignment division of State Medical Society and went to Albany on February 1 to work with the State Department of Health.

Dr. Manzella, a native of Buffalo, where he received his medical education in the University of Buffalo, has been in Newburgh since 1933. He was health officer from January, 1938, to October, 1940.

While Newburgh's health officer, Dr. Manzella took a course in public health in Harvard University and secured the degree of Master of Public Health. He will maintain his residence in Newburgh.*

The Medical Expense Fund of New York has issued membership certificates to many Newburgh individuals.

More than half the doctors of Orange County are professional members of the fund and twenty-seven physicians in Newburgh are affiliated with it.*

Richmond County

The regular meeting of the county society was held in the auditorium of the Public Health Building on February 11. In the absence of Dr. H. Lynn Halbert, the chair was held by Dr. D. V. Catalano.

Judge Walsh, as a representative of the Civilian Defense Volunteer Office, spoke, outlining the purpose, functions, and organization of the "block" plan.

Dr. Ethel Leonard, of the Staten Island Hospital, spoke on "Medicine in China." Her talk was based on her own experiences as a general practitioner in Peking for fifteen years.

Schenectady County

The *Schenectady Union Star* of January 21 carried the following announcement:

"A new medical program for clients of the Schenectady County Department of Public Welfare and the Board of Child Welfare will be put in operation on February 1, Leo H. Vosburg, county welfare commissioner, said today. Mr. Vosburg indicated that a central medical unit will be established for the county under the direction of a physician, to be known as medical consultant and to be employed by the county. . . .

"The consultant will be assisted by an advisory committee composed of representatives of the Schenectady County Medical Society, a representative of the dental profession, and a pharmacist. Mr. Vosburg . . . listed the following as members of the advisory committee: physicians—Dr. James M. Blake, Dr. C. F. Rourke, and Dr. Ralph D. Reid; dentist—Dr. George W. Miller; and pharmacist—Walter D. Prybylek.

"The program will apply to all categories of public assistance administered by the county welfare department. Functions of the consultant will include acting as a sort of liaison officer among the Department of Public Welfare, the Board of Child Welfare, town welfare officers, the medical profession, and vendors (druggists).

"The program is described in a medical manual, which includes a long list of reimbursable charges set up by the state. These include specified payments for practically everything from office calls through various kinds of medical attention to the compounding of prescriptions."*

Tompkins County

Dr. Louise C. Mooney has reopened the offices for the practice of internal medicine formerly conducted by Dr. C. Stewart Wallace and Dr. Norman S. Moore in the Seneca Building.

Dr. Mooney came to Ithaca in July after completion of a residency in internal medicine at Cook County Hospital, Chicago. More recently she was a member of the resident staff of the Cornell University Infirmary and Clinic, which position she resigned on January 1 to enter the private practice of internal medicine.*

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Edward Adams	65	Cornell	February 7	Manhattan
James J. Cuono	54	L.I.C. Hosp.	January 28	Brooklyn
Jacob N. Feinberg	52	Univ. & Bell.	February 10	Long Island City
J. Frank Fraser	76	Bellevue	January 31	Manhattan
Walter H. Henning	63	L.I.C. Hosp.	January 30	Bronx
J. Herbert Irish	72	N.Y. Hom.	February 2	Syracuse
Samuel Kavinoky	67	Buffalo	January 23	Buffalo
Rolfe Kingsley	61	P. & S., N.Y.	February 4	Bronx
Sylvester J. McNamara	73	L.I.C. Hosp.	January 31	Brooklyn
Percy C. Snowden	75	Vermont	February 7	Peekskill
Clarke W. Stewart	70	Niagara	January -	Olean
Walter B. Wellbrock	67	L.I.C. Hosp.	February 3	Lindenhurst

and the medical staff, will be: Drs. W. C. Travis, Joseph G. Patiky, and J. L. Sengstack.

Dr. J. L. Sengstack will be chief of the surgical department, with the following members: Drs. M. R. Keen, urology; W. P. Kortright, Joseph G. Patiky, and W. C. Travis. The following associate surgeons have been elected: Drs. R. M. Arkwright, C. E. Drysdale, William Duesselmann, and Joseph Libert, praxtology.

The department of medicine will include: Dr. Neil E. Falkenburg, chief; Drs. Anthony Firenze, cardiology; and William J. Delaney. The following are associates in medicine: Drs. William L. Bennett, Mathew dePasquale, C. V. Granger, E. Hofmann, and W. Novotny.

In the department of obstetrics are: Drs. Samuel Teich, chief; and L. P. G. Gouley, acting chief. Associates are: Drs. Benedict Kurshan and A. R. Cherry.

Associates in ear, nose, and throat are: Drs. T. W. Faulkner and Max Kimbrig.

On the staff in anesthesia are: Dr. C. Bernstein, chief, and Dr. N. E. Falkenburg, acting chief.

The emeritus staff includes Dr. G. Herbert Carter and Dr. Roger Dexter.

Courtesy staff members are: Drs. F. K. Bernstein, George Fair, A. A. Gallo, Karl Horn, Virginia Lent, Sewall Pastor, Alwyn Rand, C. M. Robin, W. D. Schmit, Nino Tamburello, Julius Tenke, and J. D. Verrilli.

The roentgenologist is Dr. L. P. Van Winkle, and the pathologist is Dr. Gordon Priestman.

In addition there are the following specialists serving as consultants at the hospital: general surgery: Dr. Henry Flack Graham, Dr. Edwin Joseph Grace, Dr. Henry W. Louria, Brooklyn; Dr. George Thomas Pack, and Dr. Edward D. Truesdell, New York City; internal medicine: Drs. Adolph Andersen, Lowell B. Eckerson, Henry M. Moses, Brooklyn; Dr. Sidney P. Schwartz, New York City; neurology and serology: Dr. Leon H. Cornwall, New York City; Dr. Harold Merwarth, Brooklyn; epidemiologist: Dr. Burdge P. MacLean, Huntington; radiation therapist: Dr. Benjamin Feuerstein, Bay Shore; obstetrics and gynecology: Dr. Arthur C. Martin, Hempstead; Drs. Harvey C. Matthews and William C. Meagher, Brooklyn; and Dr. Richard N. Pierson, New York City; orthopaedics: Dr. H. C. Fett, Brooklyn; Dr. Otho C. Hudson, Hempstead; pediatrics: Dr. Minor C. Hill, Oyster Bay.*

The board of directors of Soldiers' and Sailors' Memorial Hospital of Yates County re-elected the following officers for 1943: Charles T. Andrews,

president; M. Francis Corcoran, vice-president; George S. Sheppard, secretary; and Christie B. Briggs, treasurer.*

Alexander C. Nagle, of Scarsdale, was elected president of the board of governors of the White Plains Hospital Association on January 21. Other officers are: C. B. Winslow, first vice-president; A. J. Purdy, second vice-president; Arthur H. Titus, of New Rochelle, third vice-president; Otto C. Jaeger, secretary; and George F. Thomas, treasurer.

By an arrangement with the Norwegian Public Health and Disability Service, Norwegian sailors were treated in the hospital in 1942. By the end of the year this group averaged 35 daily. A total of 306 Norwegian patients entered the hospital during the year, and 207 operations were performed for them.*

Dr. Harry J. Worthing recently completed his fifth year as superintendent of the Pilgrim State Hospital in Brentwood. In December, 1937, Dr. Worthing came to Brentwood from Willard State Hospital, where he had served as superintendent for several years. He succeeded Dr. William J. Tiffany, who became Commissioner of the Department of Mental Hygiene.*

The medical staff of Veterans' Memorial Hospital, Ellenville, elected officers for 1943 at a meeting at the hospital on January 7. Named president was Dr. O. Roberts; vice-president, Dr. M. Akin; secretary, Dr. A. Ruggiero; and treasurer, Dr. A. Augustine.*

Dr. Emanuel Giddings, former medical superintendent at Kings County Hospital, Brooklyn, and at present a colonel in the Army Medical Corps stationed at the Walter Reed Hospital in Washington, has been appointed colonel of the 37th General Hospital, Brooklyn.

Victor Smith was again elected president of the board of managers of Memorial Hospital in Catskill at its annual meeting. Harold Moore, of Windham, was named vice-president, and Wilton O. Edwards was elected secretary.*

Newsy Notes

The New York Times published the following special cable from Caracas, Venezuela, on February 9: "A check for 16,536 bolivares was handed to Minister of Development Eugenio Mendoza this morning by officials of the North American Association for a new infantile paralysis hospital here.

"The money represents the proceeds of the Roosevelt Birthday Ball sponsored by the association."

A booklet pointing out the manner in which staff members and patients can save vital materials, manpower, and time is being distributed at Ellis Hospital in Schenectady.

The booklet, "Save for Victory," was prepared by staff members of the hospital in collaboration with officials of other hospitals in Northeastern New York. It is being distributed also to staff members and patients at hospitals in Albany and Troy.

cal service. He is physician in charge and director of the medical service at Union College, where he is a member of the faculty.

Dr. Albert Grussner was appointed to the medical board, representing the division of surgery. He succeeds Dr. E. MacDonald Stanton, who has served in that capacity for the past three years.

Dr. Grussner, senior surgeon on the hospital staff, also is chairman of the surgical group section of the hospital.

Dr. William M. Mallia was reappointed to the medical board, representing the division of obstetrics and gynecology, and Dr. A. R. Warner was reappointed to represent miscellaneous specialties.*

James R. Clark, superintendent, Southside Hospital, Bay Shore, Long Island, has been appointed to head the War-Time Service Bureau of the A.H.A., which was authorized at the St. Louis convention.

Mr. Clark has been in hospital administrative work since 1928. His education was obtained at Temple University, and he attended the Chicago Institute for Hospital Administrators in 1934.

From 1926 to 1928, Mr. Clark was an efficiency engineer in New York. He then became associated with Jewish Hospital of Brooklyn, first as executive secretary and then as assistant director. He became director of the Southside Hospital in 1935.

Mr. Clark is a member of the A.C.H.A., the A.H.A., the New York State Hospital Association, and the Greater New York Hospital Association. He is a member of the public and medical subcommittee to study hospital standardization of the latter group. He has been secretary-treasurer, membership committee member, and vice-president of the Hospital Council of Brooklyn.

At the seventh annual meeting of the Chautauqua Region Hospital Service Corporation held recently the following officers and directors were re-elected for the ensuing year: Rev. Dr. Alfred E. Randell, president; Dr. John S. Hickman, vice-president; Mrs. Felicia Grace Hall, secretary; Harold C. White, Sr., treasurer; directors: Felicia Grace Hall, Martha T. Grandin, Robert R. Dew, John S. Hickman, Henry K. Leworthy, Alfred E. Randell, Harold C. White, Sr., Fred A. Chindgren, J. Gustaf Sundin, Hugh L. Gillis, and Donald P. Braley.

The American Hospital Association Approval Certificate was presented, indicating that the corporation has met all the standards for nonprofit hospital service established by the Hospital Service Plan Commission, in recognition for the improvement in public welfare, adequate representation of professional and community interests, and active support of participating hospitals.

The following hospitals are connected with the Chautauqua Region Hospital Service Corporation: Woman's Christian Association; Jamestown General, Brooks Memorial, Dunkirk; Westfield Memorial, Westfield; and the Rhinehart Hospital, at Silver Creek.*

Herbert R. Leggett was re-elected president of the Saranac Lake General hospital for a third year at a meeting of the hospital's board of directors.

T. Edward Williams was elected to succeed Mrs. F. Ferris Hewitt as vice-president, and S. M. Fred-

eriksen was elected to succeed M. M. Munn as treasurer. C. S. Barnet was re-elected secretary.

Four new members were appointed to the board of directors. They are Woodward D. Clark, Clifford W. McCormick, Mrs. Irving Altman, and S. M. Frederiksen. Other members of the board are C. M. Palmer, Mrs. Joseph L. Nichols, Mrs. F. Ferris Hewitt, Mrs. Lawrason Brown, T. Edward Williams, Fred C. Conrad, Matthew M. Munn, Dr. E. R. Baldwin, Dr. Hugh Kinghorn, Miss Julia Conklin, Thomas P. Ward, Miss Mary Prescott, Miss Madeline Smith, Miss Celeste Theriot, D. S. McCrum, M. M. Feustmann, Lee Gray, and Mrs. Robert Wainwright.

Mrs. Catherine Collins is superintendent of the General Hospital, and Miss Phyllis Walters is the assistant superintendent.*

Dr. Jack Masur, administrator of Lebanon Hospital, New York City, now serves in the Office of Civilian Defense in Washington, D. C., as a hospital administration specialist. Lionel J. Simmonds, former superintendent of the Hebrew Orphan Asylum in New York, will succeed Dr. Masur as Lebanon Hospital administrator.

Lt. Col. Florence A. Blanchfield has been appointed superintendent of the Army Nurse Corps, effective June 1, to succeed Mrs. Julia O. Flikke, who will retire May 31.*

Dr. Charles F. Mignin, of the Mary Jemison Trail, has been named acting superintendent of Wyoming County Community Hospital, Warsaw, by the board of managers. He succeeds Wayne Copeland, who is on leave while in military service, and will continue in the office until Mr. Copeland returns. Dr. Mignin, a retired physician now engaged in farming, has served as chairman of the board of managers of the hospital for several years.*

Lawrence E. Kresge has been given a leave of absence from his position as superintendent of the Auburn City Hospital, Auburn, New York, to accept a commission in the Army Medical Administrative Corps. Jerome F. Peck, Jr., has been named acting superintendent for the duration.

Newman M. Biller, assistant director of Montefiore Hospital, New York City, has been appointed executive director of the Home for Aged and Infirm Hebrews, New York City. He will be succeeded at Montefiore Hospital by Dr. Sigmund L. Friedman.

Dr. Edward D. Truesdell will continue to serve as medical director of the Huntington Hospital, it was announced following the annual meeting of the board of directors of the hospital. Staff officers elected are: Dr. Morris R. Keen, president; Dr. Wilbur C. Travis, vice-president and treasurer; Dr. Warren P. Kortright, secretary. The joint conference committee, which, with an equal number of members of the board of directors, considers all matters of common concern to the board of directors

uary with the completion of a temporary heating arrangement, according to H. M. Walton, Jr., chairman of the hospital committee.

Almost all outside work on the building has been completed. Shipments of equipment and furniture are being received daily.

Mr. Walton has announced the receipt of two gifts of \$500 to go toward the cost of the new structure. The government will provide \$133,000 to the total cost.

Completion date for the hospital, begun last July 1, has been set for sometime after March 1.*

WINGS FOR THE DOCTOR

Aviation has introduced many new elements into the duties of military physicians. The Air Corps surgeon is as much at home in a plane as he is in an operating room.

In fact, medical officers in all branches of the armed services have taken to the air.

It is not only in their mode of transportation that modern military physicians have become air-minded. The Air Corps medical officer must not only provide medical service for flight and ground crews but must check their food and clothing and even study plane design from the viewpoint of health protection.

This is no matter of stereotyped routine. Aviators' clothing, for example, must be warm enough to protect the body at high-altitude temperatures of 60 degrees below zero and at the same time allow flyers to climb into the cockpit at ground temperatures of as high as 120 degrees. Ordinary dietetic

considerations are enhanced by the strain of air combat, which markedly increases vitamin requirements. Flyers must be guarded against carbon monoxide poisoning; ground crews need protection against the possibly harmful effects of cleaning solvents and spray paints. These are just a few of the day-to-day problems of aviation medicine.

In a field as new as this, there is necessarily a vast amount of research to be done; and flight surgeons are playing the dual part of guinea pig and experimenter. In the former role they go through all of the acrobatics of aerial combat; in the latter, they carefully observe physical and mental reactions.

The results of this wartime research will have far-reaching effects on the development of postwar civil aeronautics. Mankind is taking to the air—and flying doctors are helping to make flight safe.—*J. Med. Soc. Co. N.Y.*

SEVEN DIETARY SUGGESTIONS FOR THE AGED

Seven dietary suggestions for the aged are presented in the *J.A.M.A.* for January 2 by Edward L. Tuohy, M.D., Duluth, Minnesota, in summarization of a special article on the subject, prepared under the auspices of the Association's Council on Foods and Nutrition. Dr. Tuohy says:

"1. Elderly people should start the day with a good breakfast. It should include some substantial protein, and what else depends on body weight and activity. Protein adequacy must be maintained at all ages.

"2. As effort lessens and sedentary life supervenes, weight rise or fall should dictate the proportion of carbohydrate taken, and as much of this as possible should be from whole grain. While bran is objectionable, cracked wheat products are not. Enriching flour may be a good expedient, but the objection to dark breads should be lived down. Potato is the next best starch.

"3. For the obese, vegetables and fruits should act as the 'fillers' and provide appetite and zest for eating by meticulous preparation and serving.

"4. The elderly should eat fat sparingly, even as the middle-aged should use it cautiously. The high cholesterol sources (egg yolk, cream, and animal fats) should probably be curtailed wherever body build, family history, and other indications portend

atherosclerosis. It is the one decisive indication for dietary restriction after full stature has been attained. The danger of high blood cholesterol is not universal.

"5. Tea, coffee, and alcohol are useful stimulants. The abuse of alcohol places it for some people in the category of both refined carbohydrate and animal source fat. As a vasodilator, it inspires as well as flushes the aged. One cannot say as much for tobacco. It soothes and cuts off circulation. The quiet postprandial puff is rapidly becoming a continuous process. Tobacco is safer after 60 than before, because age has by that time made the blood vessels less elastic and labile.

"6. Food and water (hot drink) taken at regular intervals revive the old. Food becomes the best sleep producer, even though early wakefulness follows. Fruit juices add the needed vitamin content.

"7. Hunger lessens as age advances. Foods less calorically (condiments, broths, relishes) have a place. The teeth, gastric acidity, probably absorptive powers, vitamin storage—all begin to fail with age. We are able to compensate for these losses with vitamins, iron, calcium, hydrochloric acid, and a balanced diet. The mouth becomes the nutritional barometer of health."—*A.M.A. New*

Patients are advised to ask for no more nurses than necessary, to share nurses with other patients, to give up special-duty nurses at the first opportunity, to group wants instead of sending for a nurse for single minor attentions, and to reduce both incoming and outgoing telephone calls to an absolute minimum.

Physicians are asked to save the time of nurses, to write orders "clearly and distinctly," not to call on patients during meal hours, to make reservations for patients as far in advance as possible, and to make as large a saving in drugs and supplies as possible.

Hints for nurses include the salvaging of safety pins, conservation of drugs and supplies, care of blankets and other items, and the budgeting of time.

Other conservation and time-saving hints are directed toward the administrative and office staff, housekeepers, laundry, and general employees.

The booklet contains several blank pages on which patients can write suggestions for improving hospital service. Miss Mary G. McPherson, administrator, reports that approximately 51 per cent of the outgoing patients have taken advantage of the blank pages to make suggestions.*

• • •

In order to keep hospital corpsmen of the Navy informed regarding their duties, the Bureau of Medicine and Surgery of the Navy has resumed publication of the *Hospital Corps Quarterly*. The manual was first published in 1917 and was discontinued in 1930. Its purpose is to provide practical and useful information to hospital corpsmen and to assist in orientating them.

• • •

Hard pressed to hold employees tempted by higher pay in other fields, all nonprofit hospitals have been authorized by the War Labor Board to grant wage increases wherever necessary to safeguard the health of communities.*

• • •

The following editorial appeared in the *Utica Observer Dispatch* of February 10:

Improvements

A new children's ward is being added to the Eastern Long Island Hospital in Greenport.*

• • •

Plans are under way for additions to be made to the DeGraff Memorial Hospital in North Tonawanda.*

• • •

Community Hospital in Chatham has just completed a new three-floor wing.*

• • •

Ground work has been begun on a new hospital at Massena.*

• • •

The new wing donated by Edmund A. Guggenheim, in memory of his father, is now in use at Saranac Lake General Hospital.*

• • •

"Hospital Plan, Inc., which began here six years ago today, has had a speedy expansion which indicates it met a widely felt need. Today the plan has more than 95,000 persons enrolled, and had paid out more than one and a quarter million dollars for the care of patients in local and vicinity hospitals.

The local organization, operated without profit to itself and directed by prominent Uticans, was among the pioneers in the country. Now there are 77 Blue Cross plans enrolling 11,000,000 in the nation. The local plan was the first, and one of the few, endorsed by the Farm Security Administration.

"The plan has proved valuable to many patients who have found how useful it can be in time of need. At the same time, hospitals have been guaranteed an income which helps them to keep rates from going higher."*

• • •

The following items concerning Huntington Hospital have been received from W. P. Kortright M.D., Secretary of the Huntington Hospital Association:

"A Doctors' War Fund has been established since October, 1942, and has been maintained by the physicians of the Huntington Township. The purpose of this fund is to provide regular financial assistance (\$100 monthly) to families of those men who have gone into service. In this way it is thought that an adjustment can be made between the civilian income and that of an Army officer. The fund is to be given a one-year trial. Trustees of this fund are Dr. N. E. Falkenberg, Dr. J. G. Patiky, and Dr. W. C. Travis.

"In view of the increased laboratory work done at the hospital, a drive will shortly take place for funds to build a modern, clinical, pathologic laboratory.

"At its annual meeting the board of trustees of the Huntington Hospital confirmed the following appointments for the year 1943: chief of surgery, Dr. J. L. Sengstack; chief of medicine, Dr. N. E. Falkenberg; chief of obstetrics, Dr. S. Teich (in service); acting chief of obstetrics, Dr. L. P. G. Gouley; medical director, Dr. E. D. Truesdell.

"The following staff officers were elected: president of the medical board, Dr. M. R. Keen; vice-president and treasurer, Dr. W. C. Travis; secretary, Dr. W. P. Kortright."

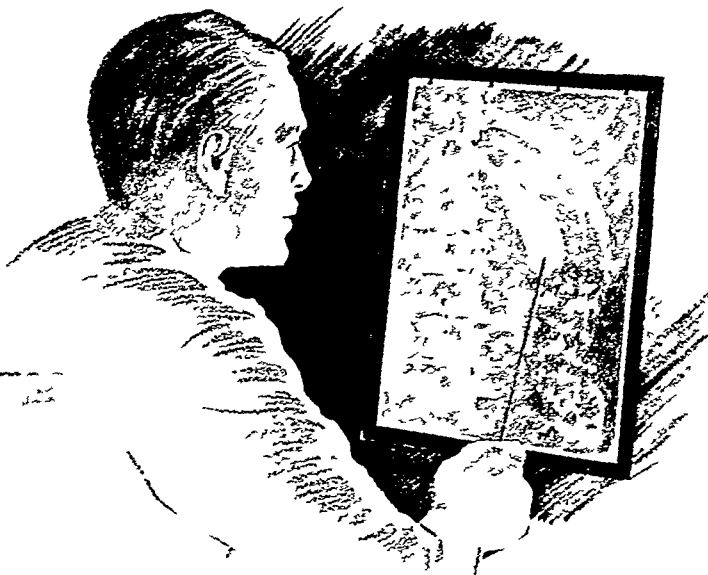
A new, small-sized interval timer has been developed for timing x-ray films in process and for other laboratory work. It can also be used in photographic darkrooms.

The timer is wound, set, and started by turning the pointer to the figure three and from there either forward or backward to the desired number. Any interval from one to fifteen minutes can be timed. At the expiration of the interval a note is struck on the gong. The accuracy of timing is within plus or minus 5 per cent.

White figures on a black background facilitate darkroom visibility. Below the five-minute marking the dial is graduated in half-minute intervals. The timer is housed in an attractive black plastic case.

• • •

Interior construction on the new \$200,000 Town of Sidney hospital was begun the last week in Jan-



DIAGNOSIS...Cholecystitis TREATMENT...SORPARIN

Chmcians are continuing to find that a diagnosis of chronic cholecystitis indicates the use of the new botanical agent, Sorparin (Ext. *Sorbus aucuparia* "McNeil")

NONTOXIC

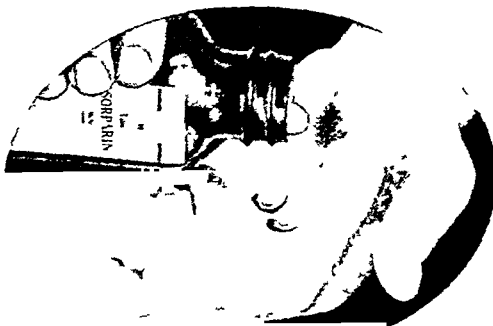
In addition to its value as an hepato-biliary stimulant, Sorparin is nontoxic. There are no known contraindications to its use, not even common duct obstruction with jaundice. Therefore it can be used with safety in jaundice cases.

Sorparin is orally administered in three-grain tablets.

INDICA- TIONS

Chronic
cholecystitis,
hepatic in-
sufficiency,
catarrhal
jaundice

*Literature
on request*



AVERAGE DOSAGE

Two tablets
three times a
day before
meals, with
water

Supplied in
bottles of 100,
500 and 1000

McNeil Laboratories
INCORPORATED
Philadelphia - Pennsylvania

Honor Roll

Medical Society of the State of New York

Member Physicians in the Armed Forces

Supplementary List

The following list is the fourth supplement to the Honor Roll published in the December 15 issue. Other supplements appeared in the January 1 and 15, and February 15 issues.

A

Abramson, A.
371 Ft. Washington Ave., N.Y.C.
Adelman, M.
320 W. 36 St., N.Y.C.
Allen, B. L. (Lt. Com.)
1230 Park Ave., N.Y.C.
Allentuck, S. (Capt.)
245 E. 21 St., N.Y.C.
Amazon, P.
918 St. Marks Ave., Brooklyn, N.Y.
Ambinder, N.
1212 Fifth Ave., N.Y.C.
Ansanelli, F. C.
1882 Grand Concourse, Bronx, N.Y.
Armour, W. S.
2090 E. Tremont Ave., Bronx, N.Y.
Ashley, R. C.
81 Burwell St., Little Falls, N.Y.

B

Babbage, E. D.
765 Parkside Ave., Buffalo, N.Y.
Barahal, H. S. (Capt.)
Station Hosp., Fort Dix, N.J.
Barsky, A. J.
4 E. 70 St., N.Y.C.
Bennett, A. L.
150 N. Pearl St., Buffalo, N.Y.
Bernstein, J. H.
106 E. 85 St., N.Y.C.
Binkley, S.
519 E. 86 St., N.Y.C.
Brenner, A. J.
542 Saratoga Ave., Brooklyn, N.Y.
Burstein, C. L.
530 E. 90 St., N.Y.C.
Butterworth, J. S. (Lt.)
Station Hosp., Miami Beach, Fla.

C

Caruso, P. V. (Lt.)
Station Hosp., Camp Myles Standish, Taunton, Mass.
Case, T. C. (Lt. Com.)
U.S. Naval Constr. Center, B.O.Q.
—04 Camp Endicott, Davisville, R.I.
Cava, A. J. (Capt.)
c/o Dr. M. R. Cava, 323 Manhattan Ave., Brooklyn, N.Y.
Cava, J. P. (Capt.)
Co. D.—57 Med. Bn., A.P.O. 352, San Jose, Calif.
Christy, C. J.
113 High St., Buffalo, N.Y.
Cohn, H. J.
Woodstock, N.Y.
Conrad, C. K.
Chappaqua, N.Y.
Conrad, J. W.
25 Jackson St., Little Falls, N.Y.
Converse, J. M.
121 E. 60 St., N.Y.C.

D

Degen, J. A., Jr.
269 Commonwealth Ave., Boston, Mass.

E

Echlin, F. A.
555 Park Ave., N.Y.C.
Elseron, L.
2028 Grand Concourse, Bronx, N.Y.
Epstein, S. S. (Lt.)
Baxter Gen'l Hosp., Spokane, Wash.

F

Farrow, J. H.
121 E. 60 St., N.Y.C.
Fein, H. D.
41 W. 86 St., N.Y.C.
Fimia, V. J.
15 E. 80 St., N.Y.C.
Fisher, J. (Lt.)
303 Ordnance Regt., Camp Hutton, N.C.
Forte, J. A.
223 Grand St., N.Y.C.
Fox, S. A.
110 E. 53 St., N.Y.C.
Franklin, R. W.
135 E. 65 St., N.Y.C.
Frick, R. E.
445 W. 23 St., N.Y.C.
Friedman, A.
1325 Nelson Ave., Bronx, N.Y.

G

Galasso, J.
467 Central Pk. W., N.Y.C.
George, J. D., Jr.
Verona, N.Y.
Gerstenblith, T.
125 Brighton 11 St., Brooklyn, N.Y.
Gilkes, D. F.
20 Hancock St., Brooklyn, N.Y.
Glusker, D.
152 Caryl Ave., Yonkers, N.Y.
Goldberg, H. I.
35 E. 176 St., Bronx, N.Y.
Goldberg, N. L.
8 E. 96 St., N.Y.C.
Goldensohn, L. N. (Lt.)
Halloran Gen'l Hosp., S.I., N.Y.
Goodyear, E. S. (Capt.)
99 Evacuation Hosp., Camp Shelby, Miss.
Gordon, H. H.
New York Hosp., N.Y.C.

H

Harris, R. E.
55 John St., N.Y.C.
Hayuga, G. E., Jr. (Capt.)
Med. Det., 1st Armd. Sig. Bn., Prov. Sig. Regt., A.P.O. 668, c/o P.M., N.Y.C.
Hertz, W.
3025 Brighton 14 St., Brooklyn, N.Y.
Holtzman, S. G. (Lt.)
439 Center St., Henderson, Ky.
Howley, T. F.
59 W. 12 St., N.Y.C.
Hurowitz, J.
50 Park Terrace E., N.Y.C.

J

Janeway, M.
Station Hosp., Ft. Des Moines, Ia.

Jenkin, J. T.
Lake Mahopac, N.Y.
Jones, A.
14 Sutton Pl. S., N.Y.C.
Joseph, M. G. (Lt., USNR)
Natl. Naval Med. Center, Bethesda, Md.

K

Kanzer, M.
65 Central Pk. W., N.Y.C.
Kaufman, J. E.
604 W. 112 St., N.Y.C.
Keefe, E. F.
1759 Montgomery Ave., Bronx, N.Y.
Kline, F. R.
2 E. 54 St., N.Y.C.
Koch, C. A.
51 N.Y. Quaker St., Orchard Pk., N.Y.
Kostecki, J. L.
626 Leonard St., Brooklyn, N.Y.
Kurek, L. S.
761 Fillmore Ave., Buffalo, N.Y.

L

Lichterman, J. J.
1754 President St., Brooklyn, N.Y.
Lieberman, D.
152 S. Ninth St., Brooklyn, N.Y.
Litvak, H. W. (Capt.)
80 A R. (Dispensary), Ft. Knott, Ky.
Lyster, N. C.
Norwich, N.Y.

M

Maranov, S.
1450—51 St., Brooklyn, N.Y.
McCollom, R. L.
115 E. 61 St., N.Y.C.
McCuaig, D. R.
40 E. 61 St., N.Y.C.
McGarvey, J. C.
380 Ontario St., Buffalo, N.Y.
Moolten, S. E.
60 E. 96 St., N.Y.C.
Morey, H. F.
Mohawk, N.Y.
Morrock, S.
1700 Albemarle Rd., Brooklyn, N.Y.
Motylloff, L. (Capt.)
Harmon Gen'l Hosp., Longview, Tex.

N

Nadler, J. E.
37-25 81 St., Jackson Heights, N.Y.
Nayer, H. R.
575 West End Ave., N.Y.C.
Neffson, A. H.
152 E. 94 St., N.Y.C.
Netter, F. H. (Capt.)
Army Med. Museum, 7 St. & Independence Ave., Washington, D.C.

[Continued on page 464]



PHYSIOLOGIC ANTISEPSIS WITH **ARGYROL**

NO CILIARY INJURY

DECONGESTION WITHOUT VASOCONSTRICTION

DETERGENT AND DEMULCENT

NO PULMONARY COMPLICATIONS

NO SYSTEMIC TOXICITY

Safe and Effective Mucous Membrane Therapy

The ability to kill micro-organisms is but one of many factors which determine the clinical efficacy of a mucous membrane antiseptic.

It is because ARGYROL impedes bacterial life without injuring the tissues; because it aids and does not impede those natural defensive processes which the tissues employ to throw off infection, and because it is non-noxious to the organism as a whole, that ARGYROL is truly a "physiologic mucous membrane antiseptic."

ARGYROL effects a decongestion through circulatory stimulation and without resorting to powerful artificial vasoconstriction. Because of its unique physical properties it is detergent,

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ARGYROL has a superior clinical record to all other mild silver proteins and it is chemically and physically different—in colloidal dispersion, in Brownian movement, in pH and pAg and in chemical reactions. Insist on the Original ARGYROL Package.

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ANTISEPTIC EFFICIENCY PLUS

1. SOOTHING AND INFLAMMATION-DISPELLING PROPERTIES
2. NO CILIARY INJURY—NO TISSUE IRRITATION
3. NO SYSTEMIC TOXICITY
4. NO PULMONARY COMPLICATIONS
5. DECONGESTION WITHOUT VASOCONSTRICTION

SPECIFY THE ORIGINAL ARGYROL PACKAGE



The anxiousness of the novice to jump into deep water might well be somewhat curbed by a full reading of *Life on the Mississippi*. The "old salt," too, would be amused by a rereading of Mark Twain's homely philosophy and native humor.—*The Bulletin, Onondaga County*

SAVE TIME-SAVE LABOR

in URINE-SUGAR TESTING with

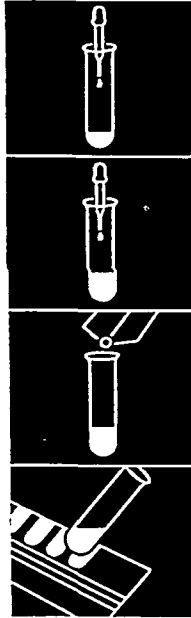
CLINITEST

1
5 drops urine

3
Drop in tablet

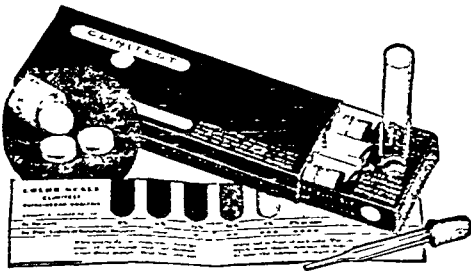
2
10 drops water

4
*Allow for reaction,
then compare with
color scale.*



By substituting Clinitest Urine-Sugar Analysis Tablets for the usual type of reagent solution, you effect these advantages:
Saving of Time—Single test requires less than 1 minute.

Saving of Labor—Just a few simple steps; no external heating required; no water bath; no bulky reagent solutions; no compounding; no assaying.



Clinitest is dependable—based on principles (copper-reduction) underlying Benedict's, Fehling's, Haines' tests. Complete sets available through your prescription pharmacy.

Write for full descriptive literature.

EFFERVESCENT PRODUCTS, INC.
ELKHART, INDIANA

Medical Legislation

The following bulletin (No. 3) was issued on February 5 by the Legislative Bureau of the Medical Society of the State of New York.

State Legislation

SINCE the last bulletin the Legislature has been asked to consider a request for the payment by the State of the travel expenses of the psychiatrist-employee when the latter is called to examine a defendant in a criminal action; and it is also asked to consider the proposition that the employer, by furnishing medical services or appliances for replacement or repair of artificial members of the body, shall not by such action be admitting liability for payment of compensation.

Senator Erway wishes the serologic test and the three-day waiting period, applicable to marriage licenses, waived when one of the parties is in the United States armed forces.

Senator Hampton has asked that children under sixteen should not be employed in theatrical performances, motion pictures, or radio broadcast performances without the written consent of the education board.

Senator Coughlin would extend the unemployment insurance provisions to include persons handling food in hospitals and educational and religious institutions.

Assemblyman Devany would license as an undertaker, without further examination, any honorably discharged soldier, sailor, marine, or nurse in the U.S. forces having not less than ten years' employment under supervision of a licensed undertaker.

Assemblyman Beckinella recommends some changes in the law regarding the licensure of dentists from foreign countries.

Assemblyman Devany asks for an appropriation of \$500,000 to establish a program for physical rehabilitation of veterans.

Assemblyman M. Wilson asks for the creation of a committee to investigate the question of reimbursement to the State for the care, maintenance, and treatment of wards.

Assemblyman Glancy proposes that all students who are inducted into the armed forces while in the final year of their course, but before its completion, shall at the close of the war be granted a diploma, and if it is a professional school, a license as well, without further examination.

Senator W. J. Mahoney sponsors a bill which would authorize the Department of Education to revoke the license of an optometrist convicted of advertising.

Bills Introduced

Senate Int. 357—Williamson, provides that tests required of motor vehicle operators and chauffeurs shall include tests for eyesight and general physical condition, as well as color blindness, all such tests to be required for renewal of licenses. Referred to the Motor Transportation Committee.

Comment: Mr. Williamson introduced this bill toward the close of the session last year but no action was taken upon it.

Senate Int. 515—Young; Assembly Int. 647—Milmo, provides for forwarding to executive officer of State Education Department a copy of all charges against physicians in cases in which subcommittee of Medical Grievance Committee, as well as the Com-

mittee, shall deem a trial necessary. Referred to the Education Committees.

Comment: This amendment was introduced at the request of the Department of Education and has the full approval of the Grievance Committee as well as the Administrative Committee of the Board of Regents. It will aid the Grievance Committee in its study of charges by permitting subcommittees to hear the cases first.

Senate Int. 522—Anderson; Assembly Int. 643—Knauf, makes it a misdemeanor to include in any newspaper, radio, display sign or other advertisement, any statement which misrepresents material frames, or mounting or price of lenses or complete eyeglasses, or price of any frame unless advertised with words "without lenses," or which misrepresents service or credit terms. Referred to the Codes Committees.

Senate Int. 528—Baum, prohibits employment of domestic workers in a private household for handling of food or care of children, who suffer from tuberculosis, venereal, or other infectious diseases; householder must require domestic to produce a physician's certificate of good health. Referred to the Health Committee.

Comment: Senator Baum, the new chairman of the Health Committee, appreciates the fact that this is probably not the wisest time to sponsor a bill of this kind, but feels that there is a real need for such legislation and is introducing the bill for educational purposes. He hopes that from the discussion of the bill he may arouse interest in what he rightly considers a serious matter, especially where an infected person comes in contact with growing children.

Senate Int. 557—W. J. Mahoney, requires Education Department to issue a certificate as certified optician to any person meeting specified qualifications; prior to January 1, 1944, examination by optometry board is not required if applicant was engaged in vocation of optician in this State for at least five years prior thereto; certificate entitles holder to make and dispense lenses, spectacles, and eyeglasses on prescriptions of physicians or optometrists; \$10,000 is appropriated. Referred to the Education Committee.

Assembly Int. 427—Younglove, providing for appointment of assistant town physician under certain conditions. Referred to the Internal Affairs Committee.

Comment: Same as *Senate Int. 301—Young*, reported in Bulletin No. 2.

Assembly Int. 544—Breed, provides that crime of sexual intercourse with person in U.S. military service by one infected with venereal disease shall be punishable by imprisonment for not less than 1½ years nor more than 3 years. Referred to the Health Committee.

Comment: In an address given at the annual American Social Hygiene celebration recently, it was brought out that the prostitute is not the principal carrier of infection so far as the military forces are concerned. Investigation has shown that four times as many soldiers are infected from

(Continued on page 468)

Personalized G-E Field Service Is Not Only For The Duration

● To users of G-E x-ray and electromedical apparatus, the maintenance service rendered by factory-trained men in G-E's local branches and regional service depots is increasingly important these days. And they are getting it despite many of the handicaps which war restrictions impose.



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SARANAC LAKE

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209 Medical Arts Building
Alexander St. at Gardiner Pk.

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SYRACUSE

Room 901, Chimes Building

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[Continued from page 466]

contacts with willing girls in the "teens" as from prostitutes. This bill amends the law by stating the penalty to be imposed for its violation.

Assembly Int. 636—Fogarty, provides that an employee mentally disabled as result of accident arising out of employment shall be entitled to receive medical care and maintenance in public hospital or institution at expense of employer and without deductions from workmen's compensation award. Referred to the Labor Committee.

Assembly Int. 666—Mitchell, empowers New York City magistrate to try to punish any person charged with violating sections of sanitary code, the penalty to be a fine not exceeding \$25, or imprisonment not exceeding 10 days, or both. Referred to the Judiciary Committee.

Assembly Int. 669—Sutor, provides that in case of death occurring without medical attention, coroner may be notified, as well as local health officer, to investigate and certify as to cause of death; legalizes acts heretofore performed by coroners. Referred to the Health Committee.

Comment: This bill passed both houses last year but was vetoed by the Governor.

Assembly Int. 672—Pillion, extends until July 1,

1944, provisions permitting person inducted into military service and licensed to practice medicine, dentistry, and other professions and occupations to apply for renewal of license without examination within three months after termination of military service. Referred to Education Committee.

Comment: Last year Senator Burney and Assemblyman Pillion sponsored a bill which would protect the licenses and registrations of professional people who were inducted into the Army for a period after the close of the war. That bill was enacted into law. Its provisions take care of all who are inducted prior to July 1, 1943. This measure extends the time to July 1, 1944.

Action on Bills

S. Int. 311—Hampton—Habit-forming drugs—Reported.

S. Int. 328—Bewley—Tax deductions, medical expenses, etc.—Third Reading.

JOHN L. BAUER
WALTER W. MOTT
LEO F. SIMPSON
Committee on Legislation
JOSEPH S. LAWRENCE
Executive Officer

PAMPHLET ON VENEREAL DISEASE

A sixteen-page pamphlet entitled "Office Procedures in the Laboratory Diagnosis of Venereal Diseases" is being offered free to all physicians by the Bureau of Social Hygiene of the New York City Department of Health, 125 Worth Street, New York City. A request on a postcard will bring you a copy. The booklet explains approved methods of clinical

pathologic laboratory procedures, all of which may be employed by the practitioner in his own office. These include preparations of gonococcal smears, method of staining, collection of culture material, also detailed data on examination for trichomonas vaginalis, syphilis, granuloma inguinale, lymphogranuloma inguinale, and chancroid.

HITLER AND THE DEVIL

Hitler called the Devil up on the telephone one day. The girl at Central listened to all they had to say. "Hello," she heard Hitler say, "Is Old Man Satan Home?"

Just tell him it's the dictator who wants him on the phone."

The Devil said, "Howdy," and Hitler, "How are you?"

I'm running a hell here on earth, so tell me what to do."

"What can I do," the Devil said, "dear old pal of mine?"

It seems you don't need any help—you're doing mighty fine."

"Yes, I was doing very good until awhile ago, When a man named Uncle Sam wired me to go slow: He said to me, 'Dear Hitler, we don't want to be unkind.

But you have raised hell enough, so you'd better change your mind.'

I thought the lend-lease bill was bluff, and could never get it through,

But he soon put me on the spot when he showed me what he'd do.

Now that's why I called you, Satan—I need advice from you,

For I know that you will tell me just what I ought to do."

"My dear Hitler, there is not much left to tell, For Uncle Sam will make it hotter than I can here in Hell.

I have been a mean old Devil, but not half so mean as you,

So the minute that you get here the job is yours to do.

"I'll be ready for you coming, and I'll keep the fires all bright,

And I'll have your room all ready when Sam begins to fight,

For I see your days are numbered and there's nothing left to tell,

So hang up your phone, get your hat, and meet me here in Hell."



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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgement of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

REVIEWED

Ophthalmology and Otolaryngology. Prepared and Edited by the Subcommittees on Ophthalmology and Otolaryngology of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. Octavo of 331 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$4.00.

This work is one of a series issued by the National Research Council to present in compact form essential, up-to-date, and reliable information on military surgery.

This manual is a welcome addition to the series and will prove beneficial to any physician who wants it for quick reference or mature study, either in military service or civilian practice. It is designed especially for the general practitioner in order to aid him in getting an inside view of war injuries such as those that may occur in any of the armed forces.

The drawings are excellent for their simplicity so that the beginner may have a clear picture of the subject under discussion.

It is well written and is an ideal companion to texts on ophthalmology and otolaryngology. However, we doubt that anyone would undertake surgery as described herein, unless he has seen these operations performed.

JOSEPH E. BRAUNSTEIN

Practical Survey of Chemistry and Metabolism of the Skin. By Morris Markowitz, M.D. Octavo of 196 pages. Philadelphia, The Blakiston Company, 1942. Cloth, \$3.50.

In his preface the author states: "The material in this book is presented to the students and practitioners of medicine as a general survey of fundamental facts necessary to a better understanding of dermatology." The book is divided into 4 general parts which include: The Chemistry of the Skin, Hematology, Blood Chemistry, and Vitamins in Dermatoses.

It is a difficult task to select for others, or even to attempt to point out for their enjoyment, any one or more of the important items contained in the 29 chapters into which the 4 major parts have been subdivided. Some idea of the contents may be gained through a cursory glance at the headings of the chapters.

The chemistry of the skin deals intimately with the organic and inorganic elements contained within the substance of the skin; biologic oxidation and reduction; the enzymes; the acid-base balance, pigments; and absorptivity and permeability. The chapters on the blood contained in the second part are of vital interest to the general man as well as to the dermatologist. From a dietetic standpoint, the information gained from a chemical examination of the blood may often show the presence of changes that would indicate the proper treatment to pursue. For example, an excess of glycogen, or an increase of uric acid, would indicate a reduced carbohydrate intake and a lowered purine diet, respectively, or an excess of nonprotein or urea nitrogen would call for a decrease in albuminous foods. The subject of vitamins and that of avitaminosis in dermatology are exhaustively treated and represent the latest

thought. The author has written this book to encourage the student as well as the general practitioner to make use of every possible aid which science has placed at his disposal to assist in his diagnosis and treatment. Each subject is treated by the author in such manner as to show the relationship between the facts elicited and their application in practice. A complete bibliography is appended to each chapter.

NATHAN THOMAS BEERS

Management of the Sick Infant and Child. By Langley Porter, M.D., and William E. Carter, M.D. Sixth revised edition. Octavo of 977 pages, illustrated. St. Louis, C. V. Mosby Company, 1942. Cloth, \$11.50.

The sixth edition of this well-accepted single volume, pertaining to the sick infant and child, has the same clarity of purpose as previous editions. New advances, drawn from many sources, have been incorporated.

Particularly excellent is the chapter of 162 pages on "Methods." It is well illustrated and will be found useful to those using the hollow needle and tube.

This book compares favorably with other well-known single volumes on pediatrics.

THURMAN B. GIVAN

Urological Diseases of Pregnancy. By E. Granville Crabtree, M.D. Octavo of 472 pages, illustrated. Boston, Little, Brown and Company, 1942. Cloth, \$6.50.

This volume is a scientific, thorough, and comprehensive work from the able pen of an outstanding urologist.

Dr. Crabtree has had twenty years of active experience in the field and has contributed numerous papers to the literature during that period. He has made a definite effort to establish urologic diseases in pregnancy as an entity. Although the time apparently is not at hand for another subdivision of a specialty, further need for closer collaboration between urologists, obstetricians, and gynecologists is definitely indicated. Even though there are numerous local and constitutional factors peculiar to urology in pregnancy, it must be generally stated that urology is still an entity whether in adults, children, or pregnant women.

The subjects are well illustrated, with convenient references at the end of each chapter. A chapter on toxemia of pregnancy by Dr. George C. Prather is included.

The reader cannot fail to be impressed with the enormous amount of time and effort required by the author to complete the book. He deserves special commendation for his valued contribution, which may be considered as a reference text for urologists, obstetricians, and gynecologists, as well as for the general profession.

AUGUSTUS HARRIS

The History and Evolution of Surgical Instruments. By Dr. C. J. S. Thompson. Quarto of 113

[Continued on page 472]

Chemotherapy

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Sulfathiazole exerts a pronounced and rapid bacteriostatic effect upon the most common causative organisms of pneumonia (pneumococci, hemolytic streptococci, staphylococci). It is not necessary to delay treatment of pneumonia until the laboratory report on sputum typing has been received.

In the vast majority of cases Sulfathiazole is administered by mouth; occasionally it is necessary to resort to injection. Only in certain circumstances is specific serum also indicated.

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Say you saw it in the NEW YORK STATE JOURNAL OF MEDICINE

[Continued from page 470]

pages, illustrated. New York, Schuman's, 1942 Cloth, \$8.50.

In 1941 Nazi bombs destroyed a good part of the collection of surgical instruments gathered in the course of many years in the building of the Royal College of Surgeons of London. It is, therefore, especially significant to have published at the present time this volume by Dr. C. J. S. Thompson, who is curator of the Royal College of Surgeons and well known as a medical historian, for his book is almost a complete record of the Royal College collections. Dr. Thompson's book is a detailed, comprehensive survey of the development of surgical instruments. Mr. Henry Schuman, the publisher, has presented the work in a beautiful format and deserves credit for his contribution to this significant achievement.

GEORGE ROSEN

Psychological Effects of War on Citizen and Soldier. By R. D. Gillespie, M.D. Octavo of 250 pages. New York, W. W. Norton & Company, 1942. Cloth, \$2.75.

The author of this book has an international reputation as a leader in psychiatry. Here he presents first-hand observations of psychologic effects of modern warfare on the civilian population as well as on the members of the armed forces. He gives an excellent résumé of his experiences in this particular field and makes many valuable suggestions for the prevention of mental disorders. The book is divided into seven chapters devoted to the following topics: changing concepts in psychoneuroses, constitutional factors in psychoneuroses, social factors in psychoneuroses, psychoneuroses among civilians in war, psychoneuroses in the fighting forces, morale—individual, national, and human relationships in the postwar world. There is a bibliography pertaining to articles written by different authorities on special points treated by the author.

This book is a lucid explanation of the modern concepts of the psychoneuroses and naturally is a very timely one.

It is highly recommended to all intelligent people.

IRVING J. SANDS

Central Autonomic Regulations in Health and Disease. With Special Reference to the Hypothalamus. By Heymen R. Miller, M.D. Octavo of 430 pages, illustrated. New York, Grune & Stratton, 1942. Cloth, \$5.50.

There has long been a need for a book on the central autonomic nervous system written from the standpoint of the clinician. The author is essentially a clinician who has combined bedside experience with a sound neuroanatomic and neurophysiologic knowledge of the hypothalamus and its connections. The value of the book lies in the correlation of the central autonomic nervous system in relation to clinical medicine. The author has included terse presentation of cases to illustrate the material. The general practitioner will find a great deal of value in the discussion of the central regulation of respiration, sleep, circulation, water metabolism, the genitourinary system, and the alimentary tract. Chapters on the use of drugs that affect the autonomic nervous system greatly enhance the value of the book.

Furthermore, without having to resort to a textbook on neuroanatomy, the reader will find included

[Continued on page 474]

Hospitals and Sanitariums

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Physician in Charge

EXECUTIVES ARE ESSENTIAL, TOO!

With manpower the first vital war need, the public and even those that govern activities have narrowed their view of this most important essential to laborers and skilled mechanics—forgetting that executives are equally necessary.

At the Congress on Industrial Health, in January, the program came to a close with a discussion by Dr. Walter Alvarez on "The Care and Feeding of Executives."

Most important was the advice given executives to "slow down," and to take adequate rest and learn to let subordinates shoulder some of the responsibility. Executives, today, are even more essential to their companies and to their country than normally, and we must remember that the mortality of executives and other overburdened brain-workers and the incidence of serious degenerative diseases in this group appear much higher than among manual laborers.

Dr. Alvarez suggested these health rules for executives:

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Punctuating this commonsense advice, Dr. Alvarez remarked, "The phenomenon of nervous breakdowns among executives is quite common, probably because such men not only work too long

hours in the office, but also take up most of their time outside with talking shop and making contacts which will apparently be helpful."

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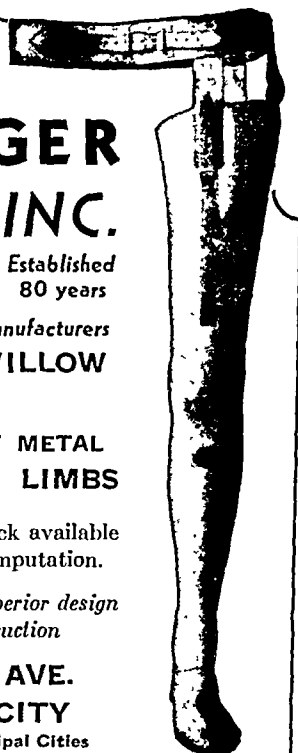
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[Continued from page 472]

a comprehensive description of the anatomy of the hypothalamus and its fiber connections. Contraversal matter has been wisely eliminated.

The material is well organized and interestingly presented. One, therefore, has no hesitancy in recommending this book to the general practitioner as well as to the specialist. Both will feel repaid by securing it for daily reference as well as for the library.

JOSEPH L. ABRAMSON

Medical Manual of Chemical Warfare. Revised Edition. Octavo of 106 pages, illustrated. Brooklyn, Chemical Publishing Company, 1942. Cloth, \$2.50.

This manual begins with a brief summary of chemical warfare agents that may be encountered in a modern gas attack. This is followed by a discussion of the toxic effects produced on the different organ systems by vesicants, pulmonary irritants, and systemic poisons. The nature and effects of the harassing agents are also described.

Methods for decontamination and treatment of casualties resulting from each type of compound are given, as well as the procedures for protecting the body against their toxic action.

An atlas of ten plates showing the various types of lesions that may be encountered is added as an appendix. Much important material has been gathered together to make this book a useful compendium for the medical gas officer.

ALFRED GOERNER

Serology in Syphilis Control: Principles of Sensitivity and Specificity. With an Appendix for Health Officers and Industrial Physicians. By Reuben L. Kahn, M.S. Octavo of 206 pages. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$3.00.

This is not a book of technic. It deals with the principles of serology and represents an amplification of six lectures which were delivered at the U.S. Naval and U.S. Army Medical Schools in Washington, D.C. It is of value to serologists and pathologists who are interested in serologic studies of syphilis. A small book of 191 pages, it has excellent references and statistical diagrams and is a valuable addition to any hospital library. One does not have to agree that the Kahn test for syphilis is the most sensitive and most specific in order to enjoy this book.

M. J. FEIN

Traumatic Surgery of the Jaws. Including First-Aid Treatment. By Kurt H. Thoma, D.M.D. Quarto of 315 pages, illustrated. St. Louis, C. V. Mosby Company, 1942. Cloth, \$6.00.

This well-arranged and intelligently written book is profusely illustrated with photographs, x-rays, and drawings to facilitate the understanding of the text. The text is in clear, easily readable, large type. There are ten chapters, the first three of which are devoted to first aid treatment, examination of the patient, and treatment planning. Chapter IV considers facial and oral war wounds, and Chapter V deals only with traumatic injuries to the teeth.

Fractures and deformities of the mandible, maxilla, condyle, and mandibular joint are discussed, with their detailed treatment, in the main body of the book. The book closes with a chapter which not only elucidates, but also gives examples of diet, bandaging, and nursing care, so essential for recovery in these types of injuries.

Continued on page 476]

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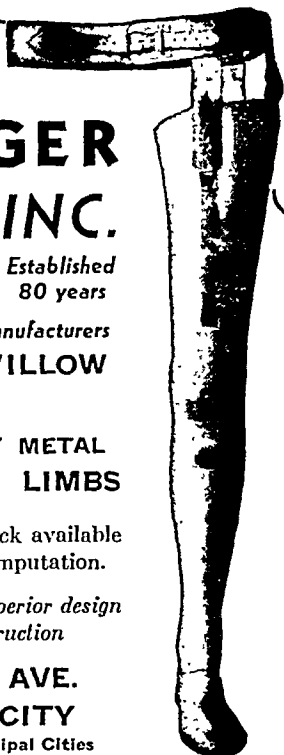
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[Continued from page 472]

a comprehensive description of the anatomy of the hypothalamus and its fiber connections. Controversial matter has been wisely eliminated.

The material is well organized and interestingly presented. One, therefore, has no hesitancy in recommending this book to the general practitioner as well as to the specialist. Both will feel repaid by securing it for daily reference as well as for the library.

JOSEPH L. ABRAMSON

Medical Manual of Chemical Warfare. Revised Edition. Octavo of 106 pages, illustrated. Brooklyn, Chemical Publishing Company, 1942. Cloth, \$2.50.

This manual begins with a brief summary of chemical warfare agents that may be encountered in a modern gas attack. This is followed by a discussion of the toxic effects produced on the different organ systems by vesicants, pulmonary irritants, and systemic poisons. The nature and effects of the harassing agents are also described.

Methods for decontamination and treatment of casualties resulting from each type of compound are given, as well as the procedures for protecting the body against their toxic action.

An atlas of ten plates showing the various types of lesions that may be encountered is added as an appendix. Much important material has been gathered together to make this book a useful compendium for the medical gas officer.

ALFRED GOERNER

▼ **Serology in Syphilis Control: Principles of Sensitivity and Specificity.** With an Appendix for Health Officers and Industrial Physicians. By Reuben L. Kahn, M.S. Octavo of 206 pages. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$3.00.

This is not a book of technic. It deals with the principles of serology and represents an amplification of six lectures which were delivered at the U.S. Naval and U.S. Army Medical Schools in Washington, D.C. It is of value to serologists and pathologists who are interested in serologic studies of syphilis. A small book of 191 pages, it has excellent references and statistical diagrams and is a valuable addition to any hospital library. One does not have to agree that the Kahn test for syphilis is the most sensitive and most specific in order to enjoy this book.

M. J. FEIN

Traumatic Surgery of the Jaws. Including First-Aid Treatment. By Kurt H. Thoma, D.M.D. Quarto of 315 pages, illustrated. St. Louis, C. V. Mosby Company, 1942. Cloth, \$6.00.

This well-arranged and intelligently written book is profusely illustrated with photographs, x-rays, and drawings to facilitate the understanding of the text. The text is in clear, easily readable, large type. There are ten chapters, the first three of which are devoted to first aid treatment, examination of the patient, and treatment planning. Chapter IV considers facial and oral war wounds, and Chapter V deals only with traumatic injuries to the teeth.

Fractures and deformities of the mandible, maxilla, condyle, and mandibular joint are discussed, with their detailed treatment, in the main body of the book. The book closes with a chapter which not only elucidates, but also gives examples of diet, bandaging, and nursing care, so essential for recovery in these types of injuries.

Continued on page 476]

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EXECUTIVES ARE ESSENTIAL, TOO!

With manpower the first vital war need, the public and even those that govern activities have narrowed their view of this most important essential to laborers and skilled mechanics—forgetting that executives are equally necessary.

At the Congress on Industrial Health, in January, the program came to a close with a discussion by Dr. Walter Alvarez on "The Care and Feeding of Executives."

Most important was the advice given executives to "slow down," and to take adequate rest and learn to let subordinates shoulder some of the responsibility. Executives, today, are even more essential to their companies and to their country than normally, and we must remember that the mortality of executives and other overburdened brain-workers and the incidence of serious degenerative diseases in this group appear much higher than among manual laborers.

Dr. Alvarez suggested these health rules for executives:

1. Slow down.
2. Take a month's vacation, or at least a short rest now and then.
3. Delegate authority to others.
4. If you cannot sleep, a soporific will be helpful.
5. Do not smoke too much.
6. If you do play, do not play too intensely.
7. Don't get angry.
8. If you are gaining weight, avoid fats and sugar.
9. If your heart muscles are not so good, walk and live at a slower pace.

Punctuating this commonsense advice, Dr. Alvarez remarked, "The phenomenon of nervous breakdowns among executives is quite common, probably because such men not only work too long

hours in the office, but also take up most of their time outside with talking shop and making contacts which will apparently be helpful."

Dr. Alvarez characterized an executive as a man who lives intensely and hastily and does strenuously whatever he sets out to do.

He pointed out that the common symptoms of nervous breakdown include a sense of impaired health and energy; getting up tired in the morning; "playing out" by noon; feeling a need for forcing the brain; or feeling a sense of tension. To these can be added, insomnia, increasing irritability, impatience, ill humor, and "a desire to snap heads off."

Another interesting feature of the talk by Dr. Alvarez was his analysis of the overwhelming complexities of modern affairs—science, industry, government—as compared with the comparatively short time given the human organism to adjust itself to them. It is less than a half-dozen generations since life was rather primitive and its demands on the mind very much less severe. In some tropical islands, the inhabitants still live according to their primeval customs. Even in this country, many of our bright youngsters of foreign extraction had grandparents who lived in a routine of simplicity and easy habits . . .

The brain, therefore, can't take it. "Only a small percentage of men in the nation have the type of keen brain that can grasp the big problems of modern business and science. What is worse, is the fact that even these keen brains are unable to stand for any long time the strain of constant and heavy use."

Nevertheless, concluded Dr. Alvarez, the executive is an important national asset and he must look to his health for the nation's sake.

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[Continued from page 474]

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THOMAS B. WOOD

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Here is a book about animals written by a woman who combines two rare qualities seldom possessed by one individual—namely, greatness of heart and the ability to express one's thoughts and emotions in a style that makes reading of these pages a joy long to be remembered.

After perusing the book from cover to cover it is difficult to decide whether the author is a thorough scientist, a literary genius, or both. Judging her by the merit of this book, she rightfully belongs to both categories.

To review Mrs. Lintz's book is a labor of love. Here one will find a rather detailed and scientific discussion on modern nutrition. Animal behavior so ably analyzed by the author may profitably be applied to child behavior. In fact, various phases of child care may be borrowed and applied in no small measure from Mrs. Lintz's detailed analyses and from her numerous experiments here cited.

The animals discussed embrace St. Bernards, guinea pigs, reptiles, but monkeys and apes occupy most of Mrs. Lintz's experiments and investigations.

Readers who have enjoyed the work of the late Terhune will find Mrs. Lintz's a postgraduate study. While the former was largely emotion greatly colored, the latter combines with her emotions a goodly quantity of soul and humaneness as well as an enormous quantity of cold scientific information that should prove most valuable as reference material for further study. All through these pages the reader will be conscious of a depth of concern and compassion for God's creatures, big and little, animal and human. To read this book is to come to the realization of the oneness of man and all other living beings, the realization that both are God's children.

HARRY APPEL

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The title of the book is, we presume, directed toward interesting the surgeon and the student of surgery in a more detailed study of the subject. The subject-matter of this book, however, should be just as important and interesting to the internist as it is to the surgeon, although the chapter on "Surgical Shock" and the section on "Body Fluids" are most important to the surgeon.

The part of Chapter VIII dealing with "Vitamins in Surgery," although brief, is most interesting, as is Chapter XIII, in which the "Physiology of the Thyroid and Parathyroid" are discussed.

The sections dealing with the "Physiology of the Cerebrospinal Nervous System" and the "Autonomic Nervous System" are discussed in detail, giving excellent classifications of various disorders and the physiologic background for degeneration and regeneration as a result of disturbances in these systems.

The physiology discussed in this text is, for the most part, included in various volumes dealing with surgery of the systems of the body, and for this reason the inclusion in one volume of all the important physiology of the body to date makes this text an excellent reference book on this all-important subject.

HERBERT T. WIKLE

Human Pathology. By Howard T. Karsner, M.D. Sixth edition. Quarto of 817 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1942. Cloth, \$10.

This standard textbook, now published in its sixth edition, needs no introduction to the profession. The author has revised the previous text and has added sections referring to current knowledge in order to bring the book up to date. Certain additions to this volume deserve mention; for example, a section on vitamin deficiencies has been included and the question of shock has been studied from the viewpoint of the pathologist. The excellent material on tumors has been enlarged and, as the author states in his preface, has been rewritten to "incorporate the results of recent research." One noticeable feature that distinguishes this from previous editions is the use of more actual photographs of gross and microscopic material, which contrast favorably with many of the old drawings that always appeared to be somewhat artificial. Each chapter of the text is replete with many references bearing on the subject-matter. It is noteworthy that these references cover in many instances the most recent periodical literature. The departure in this edition of the arrangement of the text with shortened lines, provided by the printing of two columns to the page, is a delight to the reader and a credit to the art of the publisher.

THEO. J. CURPHEY

Communicable Diseases. By Nina D. Gage, R.N., and John F. Landon, M.D. Third edition. Octavo of 453 pages, illustrated. Philadelphia, F. A. Davis Company, 1942. Cloth, \$3.50.

This book on the communicable diseases is an excellent text and guide for the nursing profession. In this, the third edition, it has been brought further up to date by the addition of six chapters and twelve illustrations. New chapters have been added on yellow fever, plague, and tetanus, while those on diphtheria, scarlet fever, poliomyelitis, and psittacosis have been revised or rewritten. The book is essentially a practical one with brief, simple clinical descriptions of the respective diseases and with detailed discussion of their nursing care. The authors have been particularly interested in adopting the text to the rapidly changing conditions of professional life. Nurses will find this volume instructive and useful in handling cases of communicable diseases.

JOSEPH C. REGAN

Manual of Standard Practice of Plastic and Maxillofacial Surgery. Prepared and Edited by the Subcommittee on Plastic and Maxillofacial Surgery of the Committee on Surgery of the Division of Medical Sciences of the National Research Council, and Representatives of the Medical Department,

[Continued on page 478]

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A new approach to the study of skin diseases. It clearly shows the modification of the composition of the skin following pathologic processes. Blood chemistry, hematopoietic changes and vitamins are included. By M. Markowitz, Univ. of Penna. 196 Pages \$3.50 (1942)

Hughes' Practice of Medicine, 16th Edition

Completely rewritten, this new edition discusses the various problems relating to the stress and strain of present day life. Advances in treatment by Sulfonamide compounds, poisoning by war gases and treatment, are included. Revised by Burgess Gordon, Jefferson Med College. 36 Illus. 791 Pages \$5.75 (1942)

Clinical Atlas of Blood Diseases, 5th Edition

This atlas includes 43 plates in colors depicting the clinical aspects of blood diseases. Brief paragraphs on symptoms, etiology, diagnosis, prognosis and treatment are given opposite the plates. By A. Piney and S. Wyard, London. 134 Pages \$5.00 (1942)

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[Continued from page 477]

U.S. Army, Robert H. Ivy, Chairman. Octavo of 432 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$5.00.

The first chapter of this manual deals with general considerations. It stresses the restoration of function as well as the cosmetic result, and it demonstrates the essentials which must be worked out together with the undesirable procedures which must be avoided in order to attain a successful end.

Chapter Two consists of condensed discussions on the subjects of "Free Mucous Membrane," "Face Including Bone," "Infections of the Mouth and Neck"—all of which are deeply instructive and a refreshing departure from the usual form used by many authors.

Cheiloplasty, the reconstructive surgery of the lips and mouth; meloplasty, the plastic surgery of the cheek; blepharoplasty, that of the eyes and lids; otoplasty, that of the ears; rhinoplasty, that of the nose; cervicoplasty, that of the scalp and cranium; and loss of the hard palate—each is dignified by a complete chapter. Nothing essential has been omitted.

Fractures of the jaw alone take up 54 pages and show the beautiful results that can be accomplished when the dentist and the surgeon cooperate.

The last two chapters of the book are given to the important consideration of general and local anesthesia, so vital to the success of maxillofacial and plastic surgical procedures.

The outstanding facts that impress the reviewer are the strict avoidance of debatable points and useless verbiage, as well as inclusion of past mistakes of some other authors on this subject. Although the book is officially approved for use by the medical departments of the Army and Navy, the doctor in civil practice will also find it of decided value because it represents the present modern approved and accepted methods in maxillofacial procedure. It is both textbook and reference work combined in one—a fine work.

THOMAS B. WOOD

Problems of Ageing. Biological and Medical Aspects. Second edition. Edited by E. V. Cowdry. Octavo of 936 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$10.

This is more than just a book covering the diseases of old people, for it is a discussion by many authors of the different aspects of the ageing process. Chapters deal with the ageing of plants, protozoa, insects, and vertebrates, as well as with disorders of the various systems of the human body.

It is emphasized in the foreword that the "problem of ageing is not a purely biological question, but has large cultural, social, and psychological implications." Indeed two of the most interesting and unusual chapters discuss the psychologic aspects of ageing (Miles) and psychologic guidance for older persons (Lawton). The latter author believes that for older people as well as younger ones, psychologic guidance rests on the conviction that it is possible to convert faulty adjustments into more efficient ones. The chapter deals with means of recognition and correction along these lines.

Other chapters of special interest are those on the point of view of the clinician, by L. F. Barker, and one called "Down through the Ages," by C. M. McKay, which is composed of quotations taken from the literature of the past and dealing with old people.

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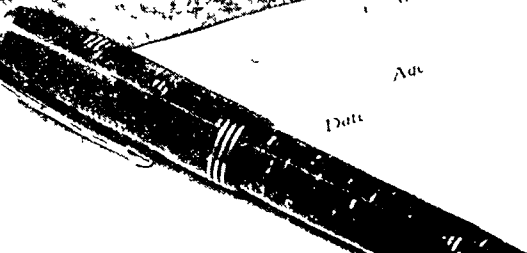
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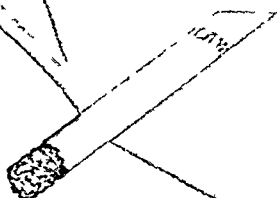
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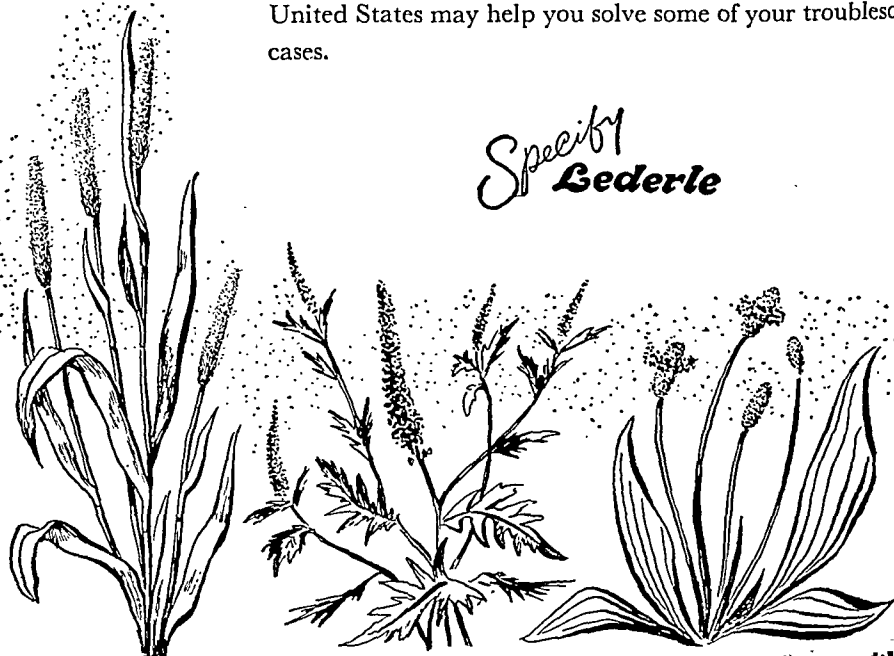
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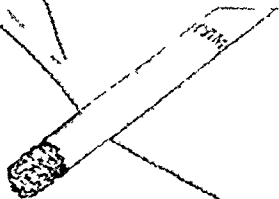
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VOLUME 43

MARCH 15, 1943

NUMBER 6


Published twice a month by the MEDICAL SOCIETY OF THE STATE OF NEW YORK. Publication Office: 20TH AND NORTHAMPTON STS., EASTON, PA. Editorial and Circulation Office: 292 MADISON AVE., NEW YORK, N. Y. Change of Address: NOTICE SHOULD STATE WHETHER OR NOT CHANGE IS PERMANENT AND SHOULD INCLUDE THE OLD ADDRESS. Fifty cents per copy—\$5.00 per year. Entered as second-class matter March 13, 1939, at the Post Office at Easton, Pa., under the Act of August 24, 1912.

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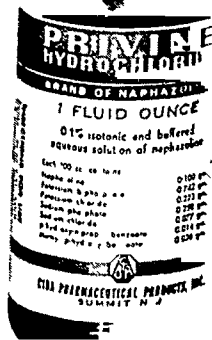
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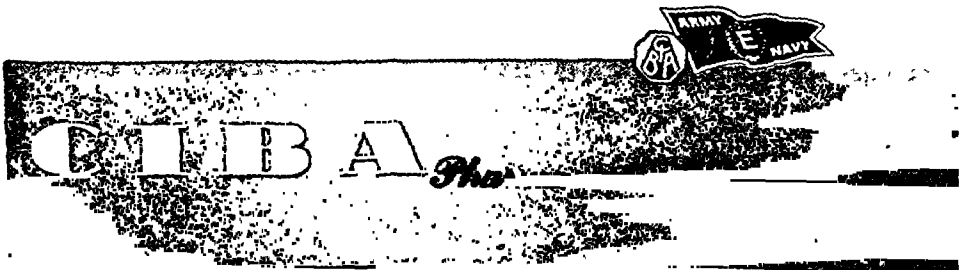
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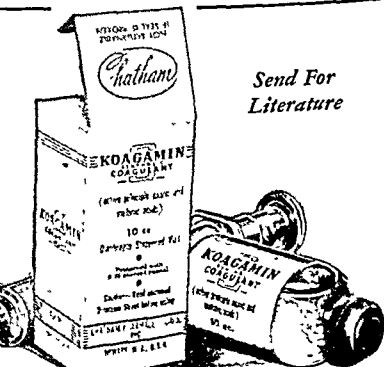
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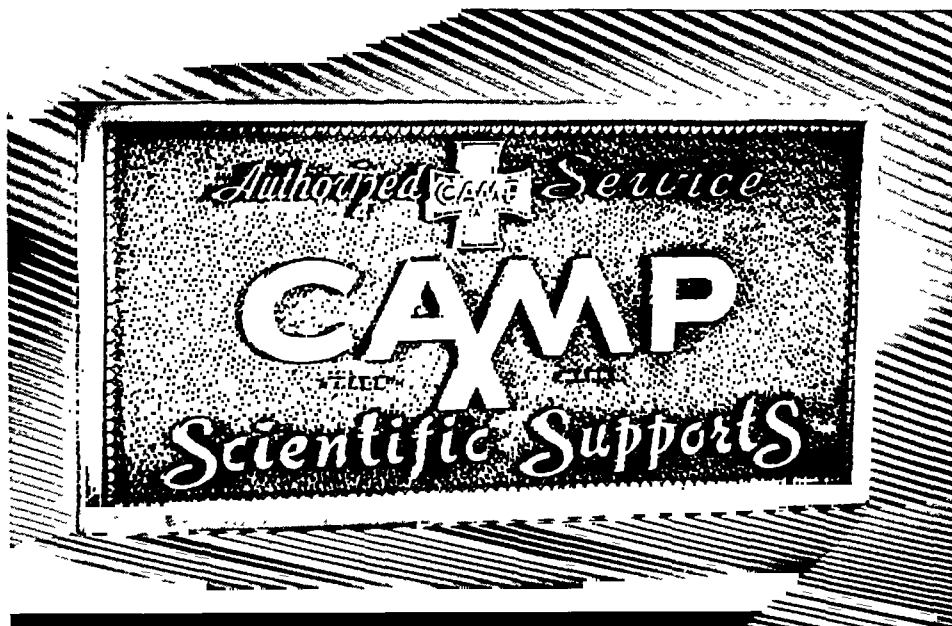
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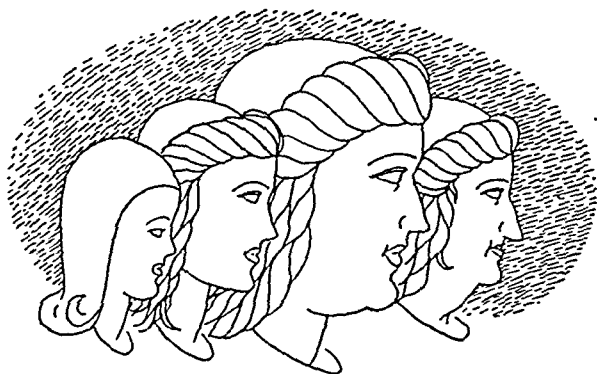
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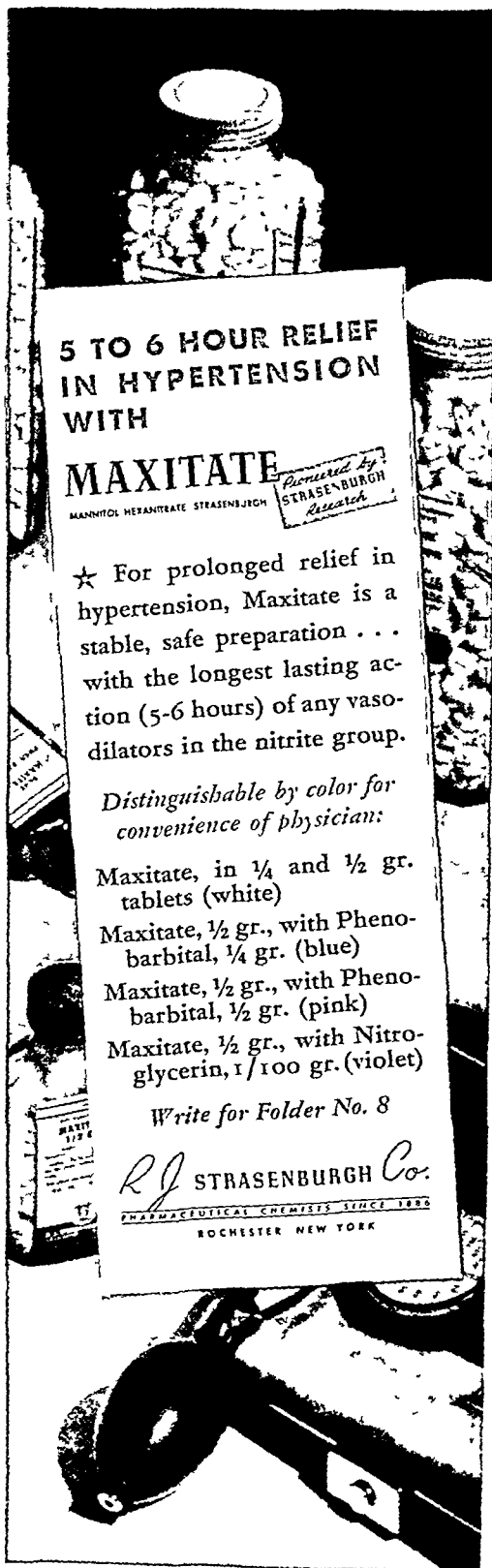


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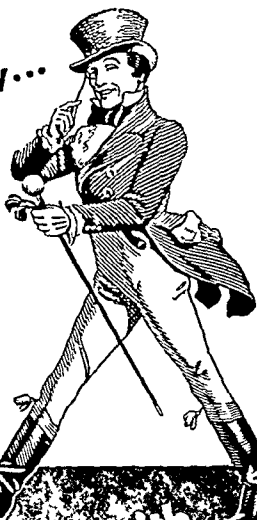
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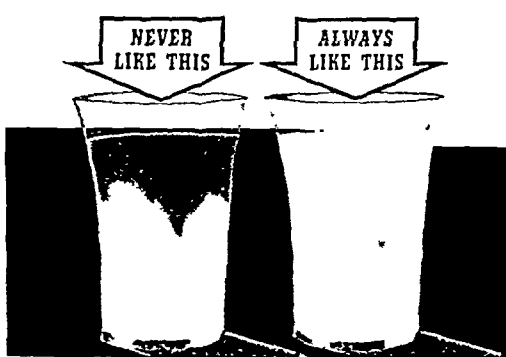
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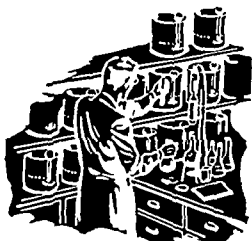
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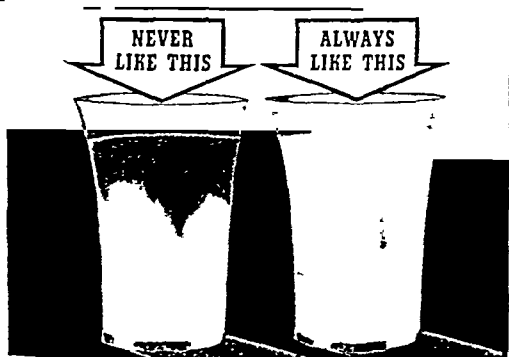
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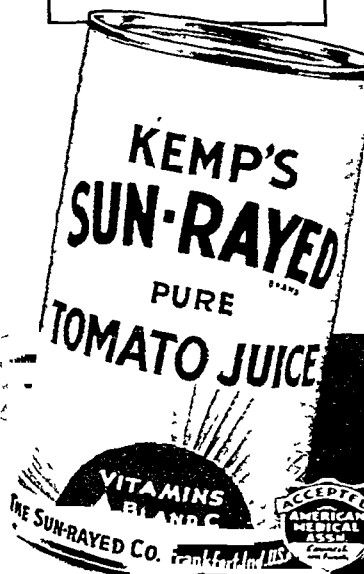
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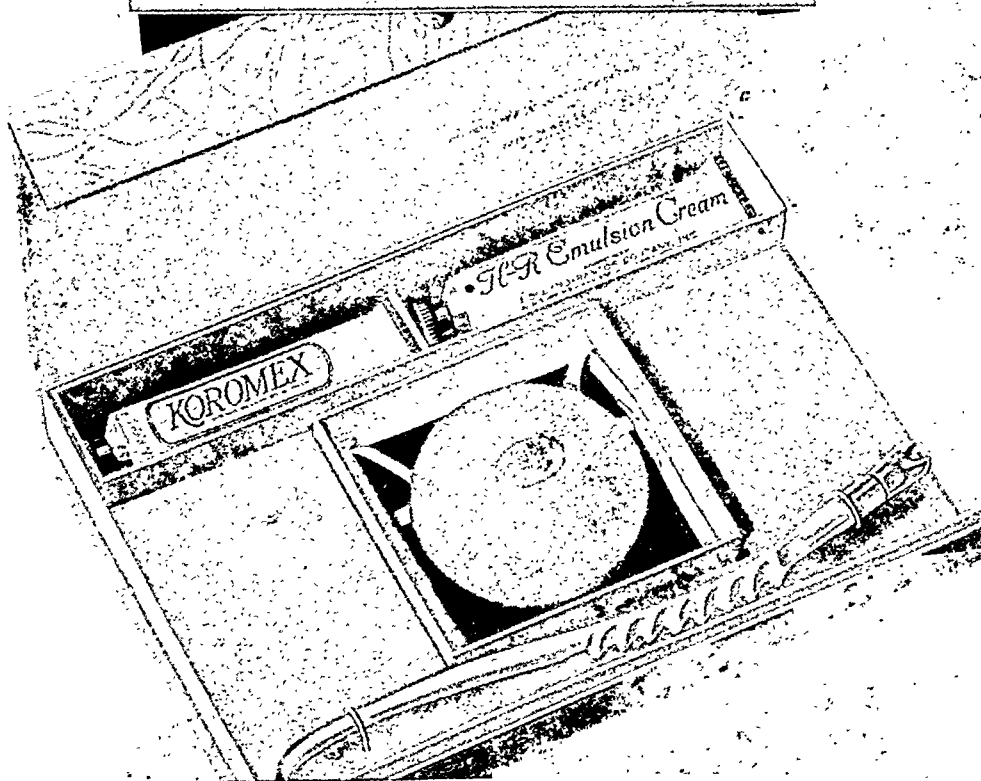
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VOLUME 43

MARCH 15, 1943

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Editorial

1942 Health Data

Many items of interest to physicians are discussed in the January issue of the *Statistical Bulletin* of the Metropolitan Life Insurance Company.¹

Concerning diseases among industrial policyholders of the Company in 1942, the *Bulletin* says:

Among the diseases which we might expect to be adversely affected by the war are the principal communicable diseases of childhood. In the last World War, the concentration of large numbers of individuals who had not acquired immunity to these diseases in childhood resulted in extensive epidemics among them. It appears that this has not occurred in the present war. At any rate, among the Metropolitan industrial policyholders scarlet fever, whooping cough, and diphtheria have recorded minimum rates, while the rate for measles is very little above its previous low. Likewise, there has been no serious outbreak of meningitis, such as occurred in the camps in the first World War.

Influenza and pneumonia, which claimed many more victims in the armed personnel than did battle casualties in the first World War, in 1942 actually played a minor role in mortality. The influenza rate of 4.2 per 100,000 is 44 per cent below the previous minimum recorded in 1938. Pneumonia in that year had a death rate of 50.6 per 100,000, and in the first five years of the decade it had averaged 66.5, last year the rate was only 29.4. The decline in the number of pneumonia deaths has been one of the outstanding features of the mortality record each year since the introduction of the newer forms of chemical and serum treatment. Although the decline in the rate continued in 1942, it was less marked than in the earlier years. This slackening in the decline is not surprising, since there is a point below which further improvement can be achieved only with exceptional effort.²

It is perhaps too much to expect that the 1942 rate for influenza and pneumonia even with exceptional effort can be maintained

or improved, but the full possibilities of the sulfa drugs and the electron microscope have not yet been explored or exploited, to name but two factors which may influence our expectations in this respect.

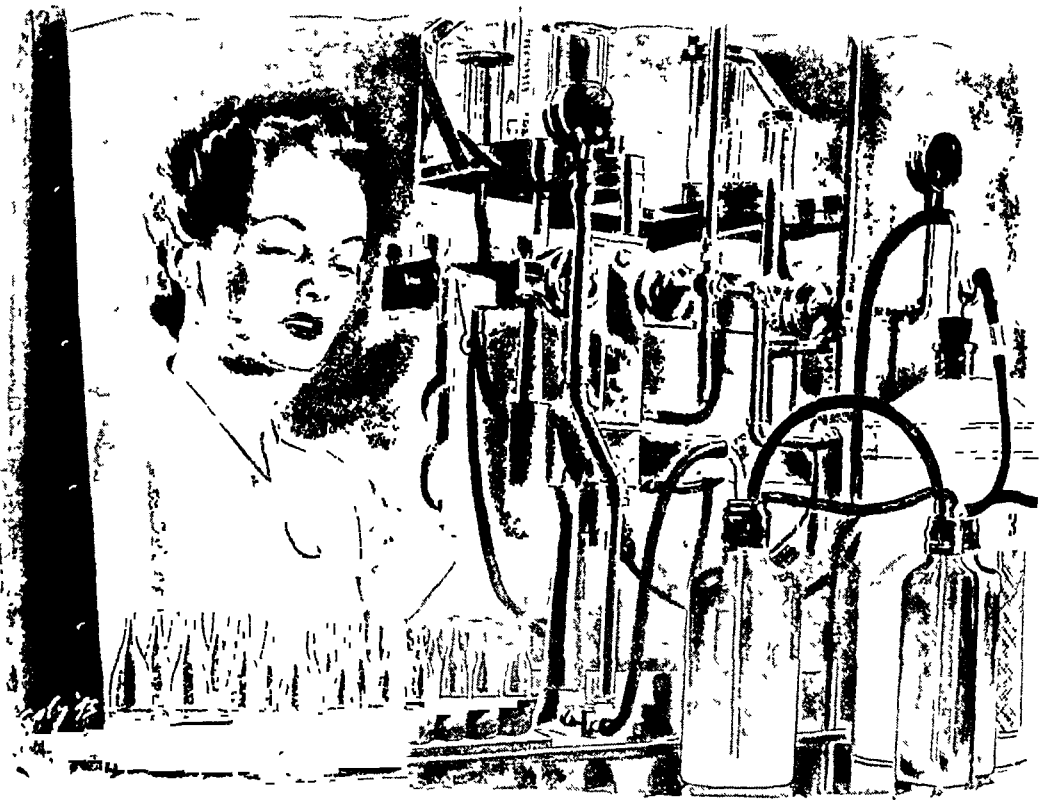
The death rate from tuberculosis, which is an excellent index to the health of the nation, continued its decline in 1942. Although the improvement was somewhat less than that between 1940 and 1941, it was twice that from 1939 to 1940. Other belligerents have not been so fortunate, and marked increases in the mortality from tuberculosis are reported from various European countries, even including Great Britain.

The venereal diseases constitute another health problem closely associated with the war. It is too early to judge how successful have been the steps hitherto taken toward the control of these diseases, for the current mortality reflects their prevalence in earlier years. It is interesting to note, however, that the rate for syphilis in 1942 among industrial policyholders was the lowest on record.

The venereal disease rate for 1942 was 10.5 per 100,000 contrasted with 11.5 for 1941 and 12.0 for 1940, including deaths from aneurysm of the aorta in this weekly premium-paying class of industrial policyholders. The implication of these figures seems to be that organized efforts to control the disease are proving effective. The weight remains to be seen, however, of the increase in the venereal morbidity rate noted in the age groups of 15 to 24 during the year 1942 and which will undoubtedly be reflected in the mortality statistics of subsequent years.

How have the rationing and the shortages of fuel affected the health of the country?

In the United States as a whole, males are the victims of exposure to excessive cold about four



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Influenza and pneumonia, which claimed many more victims in the armed personnel than did battle casualties in the first World War, in 1942 actually played a minor role in mortality. The influenza rate of 4.2 per 100,000 is 44 per cent below the previous minimum recorded in 1938. Pneumonia in that year had a death rate of 50.6 per 100,000, and in the first five years of the decade it had averaged 66.5; last year the rate was only 29.4. The decline in the number of pneumonia deaths has been one of the outstanding features of the mortality record each year since the introduction of the newer forms of chemical and serum treatment. Although the decline in the rate continued in 1942, it was less marked than in the earlier years. This slackening in the decline is not surprising, since there is a point below which further improvement can be achieved only with exceptional effort.²

It is perhaps too much to expect that the 1942 rate for influenza and pneumonia even with exceptional effort can be maintained

or improved, but the full possibilities of the sulfa drugs and the electron microscope have not yet been explored or exploited, to name but two factors which may influence our expectations in this respect.

The death rate from tuberculosis, which is an excellent index to the health of the nation, continued its decline in 1942. Although the improvement was somewhat less than that between 1940 and 1941, it was twice that from 1939 to 1940. Other belligerents have not been so fortunate, and marked increases in the mortality from tuberculosis are reported from various European countries, even including Great Britain.

The venereal diseases constitute another health problem closely associated with the war. It is too early to judge how successful have been the steps hitherto taken toward the control of these diseases, for the current mortality reflects their prevalence in earlier years. It is interesting to note, however, that the rate for syphilis in 1942 among industrial policyholders was the lowest on record.

The venereal disease rate for 1942 was 10.5 per 100,000 contrasted with 11.5 for 1941 and 12.0 for 1940, including deaths from aneurysm of the aorta in this weekly premium-paying class of industrial policyholders. The implication of these figures seems to be that organized efforts to control the disease are proving effective. The weight remains to be seen, however, of the increase in the venereal morbidity rate noted in the age groups of 15 to 24 during the year 1942 and which will undoubtedly be reflected in the mortality statistics of subsequent years.

How have the rationing and the shortages of fuel affected the health of the country?

In the United States as a whole, males are the victims of exposure to excessive cold about four

times as frequently as females. Two-thirds of the male deaths occur among men 50 years of age and older. Many of these older persons were probably suffering from arterial disease and were therefore more susceptible to the effect of exposure to cold.

It is particularly interesting at this time also to observe that some of the eastern states most critically affected this winter by fuel shortages registered death rates from cold below the general average of 2.8 per 1,000,000 observed in the United States as a whole during 1933-1940. The rates were 1.6 in both New York and New Jersey, 1.9 in Massachusetts, and 2.7 in Connecticut. Higher rates than the average occurred in Vermont (3.6), while the highest rates among those states affected by the wartime heating problem were recorded in Maryland (4.3), Rhode Island (4.5), and Maine (6.6).

The highest rates in the country prevailed in the mountain states of Nevada (24.0), Montana (14.9), and Wyoming (14.4). North Dakota (10.1) is the only other with a rate exceeding 10 per 1,000,000. The District of Columbia was lowest, with 0.6, and California was next, with 0.7.

This discussion has been limited to deaths due directly to extreme cold, actual freezing, frostbite, etc. In this connection the fuel shortage is a negligible factor. Its effect on the death rate from respiratory diseases, from homes set on fire, and from gas poisoning is another matter.

On the whole the picture for 1942, except for deaths and for those missing in military services, is encouraging.

These, in 1942, were nearly 40,000, including 11,000 members of the Philippine Scouts. While the

vast majority of the Army missing are prisoners, an appreciable number were killed in action or died of wounds. The exact situation in this regard is not known because the Japanese do not observe international conventions regarding the identification of prisoners. Even higher must be the proportion of deaths among naval personnel reported as missing.

Allowing for this situation, our military losses in 1942 probably were at least 11,000 and they may have reached 15,000. Since our military operations were predominantly naval, we lost more sailors than soldiers, the probable figures ranging from 6,500 to 8,000 for the Navy and Marines as compared with 4,500 to 7,000 for the Army. Our 1942 losses alone exceed all of those suffered by us in the first fifteen or sixteen months of the first World War. But it should be remembered that by the end of 1942 we had three times as many men serving overseas as on the corresponding date of the first World War and, moreover, this time we plunged more quickly into active and world-wide operations, both military and naval.

Concerning deaths in industry, apparently reliable figures for 1942 are still lacking, but deaths from motor vehicle accidents, according to the *Bulletin*, declined about 20 per cent among industrial policyholders and approximated 28,000 in the general population.

¹ Statistical Bulletin, Met. Life Ins. Co. 24: No. 1 (Jan.) 1943.

² Statistical Bulletin, Met. Life Ins. Co. 24: No. 1:2 (1943).

Plasma Therapy and Whole Blood Transfusion

A group of special lecturers is now available to bring to the medical profession the very latest information concerning plasma therapy and whole blood transfusion. The Council Committee on Public Health and Education of the Medical Society of the State of New York, the Office of Civilian Defense, and the Health Preparedness Commission of the State War Council and the State Department of Health, are sponsoring this program for the benefit of physicians in New York State.

These lectures may be arranged for as special single sessions or in connection with

formal courses or for special or regular meetings of county medical societies.

There should be a considerable demand for this program, and we urge all groups desiring this kind of instruction, so pertinent to the present war conditions, to apply early for speakers, in order that the committee may arrange its schedule at as early a date as possible. It is our understanding that some requests for this course have already been received from county societies, and we hope that those who have not already done so will avail themselves of this instruction.

For further details see page 557.

The Surgery of Patent Ductus Arteriosus

Nothing is more satisfying in the practice of medicine than the conversion of a previously hopeless disease into a complete cure. It matters little whether the miracle is accomplished by

purely medical means—viz., chemotherapy, vitamins, and hormones—or whether by the invention of a new surgical technic. A revolution of this type occurred recently in the congenital

cardiac lesion called patent ductus arteriosus, which had been regarded not only as incurable but as beyond any measure of relief.

Early in 1939 the first cure was reported by ligation of the patent ductus through a carefully devised transpleural technic.¹ At this time, it was pointed out by these pioneers that two dangers are inherent in the persistence of this fetal structure. One was cardiac decompensation resulting from what is virtually a large arteriovenous fistula. Criteria for recognizing this form of cardiac decompensation have been elaborated.² Cardiac decompensation was regarded by the early workers in this field as the prime indication for surgical intervention.

The second complication is streptococcus viridans endarteritis, which is easily engrafted on a patent ductus arteriosus. The inventor of the successful surgical technic and his coworkers once considered this complication a contraindication to operation.³ Nevertheless, other clinicians soon attempted ligation of the ductus so infected, but they met with failure.⁴ Two years later this fatal complication no longer proved the bar to successful ligation.⁵ Similar successes are accumulating in the literature. Thus both the

mechanical and the infectious features of this congenital malformation have been cured by a surgical method.

Unstinted praise should be lavished upon R. E. Gross, the pioneer technician, who brought about this remarkable transformation. Naturally, fellow-surgeons quickly followed the trail already blazed. A full measure of credit, however, is also due the clinician who extended the field of this surgical technic to include endarteritis of the ductus.⁵ Undeterred by previous interdictions and failures, he had the imagination and the persistence to visualize a complete cure by ligation of the infected ductus.⁵ The previously deadly streptococcus viridans infection, superimposed on the patent ductus arteriosus, has thus been conquered by the combined thought and operation of physician and surgeon.

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Congenital Deficiency Malformations

The role of diet in the maintenance of health is too obvious to require elaboration. In the case of the pregnant woman diet is doubly important, for she must meet dual physiologic demands. Even at the cost of maternal decomposition, the fetus will inexorably seize all necessary available nutrients. In a recent study, Canadian observers¹ have demonstrated that a deficient maternal diet is responsible for an increased incidence of miscarriages, stillbirths, premature births, longer labor, and more frequent uterine inertia, together with other minor complications. Dietary regimen fulfilling the needs of pregnancy has been devised by the Canadian investigators and bids fair to better protect the interests of mother and baby.

Another risk of deficient maternal diets has recently been experimentally demonstrated in rats.² Congenital malformations have been produced in the offspring of female rats reared and bred on a deficient diet (Steenbock and Black Diet 1965). In spite of supplementary viosterol, the maternal nutritional deficiency induced by this diet produces in the offspring abnormalities characteristic of a disturbed developmental process. The abnormal newborn rats show shortness of mandible, shortness of radius, ulna, tibia, and fibula, fusion of ribs and of sternal centers of ossification, and syndactylism.

This diet is low in iodine content, an element important in thyroid physiology.³ Since a defective thyroid gland might adversely affect embryonic development, iodine was added to the basic diet—with no effect. Manganese deficiency has produced experimental chondrodystrophy in the chick embryo.⁴ For this reason, manganese was added to the basic ration, but it did not prevent the congenital bone lesions. Dietary supplements that proved to be effective were 2 per cent dried pig liver and the crystalline factors of the vitamin B complex. Two per cent alfalfa, rich in vitamins A, E, K, riboflavin, pantothenic acid, and pyridoxine, was not a preventive. Apparently some factor, present in liver and vitamin B complex, and absent in alfalfa, was the prophylactic agent. An important contribution made by these investigators was the evidence that therapy is futile if begun in the last third of pregnancy. A diet deficient in the first six months of pregnancy has thus been proved to produce irremediable defects in the newborn.

While the results of animal experimentation cannot always be translated into human terms, nevertheless an important lesson is implied. The obstetrician is not only the accoucheur but also the guardian of the fetus. As such, he must not only take pelvic measurements, blood pressures, examine urines, etc., but also must

studiously analyze and regulate the maternal diet. This will serve to lighten labor, to reduce

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the number of complications, and to increase the number of live births, producing healthier babies

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And The Officers

February 9, 1943

To the Editor:

At this time the question has been brought up in various quarters as to what meats, eggs, milk, and butter diabetics should be privileged to receive. The problems are answered in the accompanying recommendations of the Committee on Food Rationing of the New York Diabetes Association, which have been carried out at the request of the New York City Department of Health. It appears that, for the time being, the diabetics are well cared for except as far as the obtaining of fresh or canned vegetables and fruits is concerned.

However, if the rationing restrictions are tightened, inevitable problems will arise, and it is for this reason that the Committee on Food Rationing of the New York Diabetes Association has recommended that diabetics be requested to turn in their sugar ration cards and receive in their place such special privileges, in the future, as their disease calls for.

It may be noted that in England the sugar ration cards of diabetics have been exchanged for extra proteins—that is, especially, meats. Since there are about 7,500,000 diabetics in the United States, I am sure that you will readily appreciate the importance of this problem to the diabetic and to the community as a whole, and we hope that you will comment and give notice to the Association's recommendations in your columns.

CHARLES F. BOLDUAN, M.D., *President*
New York Diabetes Association, Inc.

FOOD RATIONING PLAN FOR DIABETICS

As Recommended by the Committee on Food Rationing of the New York Diabetes Assn., Inc.

1. The food requirements for diabetics vary among different patients as follows:

Carbohydrates:	150 to 350 grams
Protein:	60 to 90 grams
Fat:	60 to 100 grams

This should include at least a pint of whole milk daily.

Such a diet prescription should be made for each

patient by his physician and then the amount of meat, cream, butter, milk, fruits, and vegetables, and possibly other materials required, should be designated for the particular patient and ration cards issued accordingly.

2. Diabetics should surrender their sugar ration cards and for these receive extra ration cards, when necessary, for protein foods—especially meat—milk, butter, and fresh or canned vegetables and fruits.

3. The voluntary surrendering of sugar ration cards should be the first step toward registration of diabetics.

4. With regard to the diabetic's extra requirement for cream, this is not advisable, if, as supposedly will be the case, sufficient milk is available.

It is doubtful whether there exists in the diabetic a need for cream above that of the cross section of the population. If sufficient whole milk is available, it will meet the *minimal* butter fat needs. Special provision for cream should not be made.

5. Oleomargarine and other fats may replace butter for fuel needs to the extent advocated for normal individuals.

6. The main problem at present is that the diabetic obtain enough fresh and canned fruits and vegetables. Something should be done about the cost and the availability of these items for the needy. This is especially true of the so-called 5 per cent and 10 per cent vegetables—that is, the green vegetables.

7. The greatest necessity at the moment is to provide for enough bulk in fresh and canned vegetables to compensate for the concentrated foods usually predominating in the diabetes diet.

These are all the suggestions we have to make at the moment, but additional rationing might call for further changes.

COMMITTEE ON FOOD RATIONING
HERMAN O. MOSENTHAL, M.D., *Chairman*
GEORGE E. ANDERSON, M.D.
FREDERICK W. WILLIAMS, M.D.

Symposium—Surgery of the Prostate

RHABDOMYOSARCOMA IN THE LOWER URINARY TRACT

ROBERT W. HUNT, M.D., F.A.C.S., New York City

RHABDOMYOSARCOMAS of the lower urinary tract are rare. A careful search of the literature¹⁻⁶ reveals reports of only 26 cases—8 of the bladder and 18 of the prostate gland. Two additional cases are reported here. With one possible exception,⁴ all of the cases have terminated fatally. This most unfavorable statistical prognosis, plus the fact that over 50 per cent (16) of these cases were diagnosed and reported in the last fifteen years, would seem to warrant a discussion of the subject at this time. Discussion is further stimulated by the fact that the lesion is found in young patients, over 75 per cent of the growths having occurred in persons under 40 years of age. It is obvious that the ability to diagnose this lesion has improved, but it is equally obvious that treatment has not kept pace with the improvement in diagnosis.

Definition and Description

Rhabdomyosarcoma is the malignant variant of the rhabdomyoma. These tumors have their origin in striated muscle fiber,⁷ giving them an embryonal origin of mesoderm. The definite pathologic diagnosis is made by demonstrating evidence of myofibrillae with phosphotungstic acid stain and differentiates rhabdomyosarcoma from other sarcomas or myomas (Figs. 1 and 2).

Grossly, the tumor has been described as having the appearance of multiple polyps, or as resembling the structure of a hydatidiform mole. There is a smooth, nonulcerating, shiny, completely epithelialized surface. It would appear likely that once such a growth has been seen by the surgeon or cystoscopist, the diagnosis can be made clinically, so uniform are the gross descriptions of the tumors in the reported cases (Fig. 3).

The normal striated muscle from which these tumors arise has been demonstrated in the anterior part of the prostate.² Striated muscle fibers may be found in the region of the internal sphincter and adjacent area of the trigone. One can never prove the origin of these tumors, but it seems reasonable to believe that the neoplasms arise from the normally present striated muscle elements in the region.

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942. Part of a symposium on "Surgery of the Prostate."

From the Department of Urology, New York Medical School; Flower and Fifth Avenue Hospital.

Clinical Diagnosis

The initial manifestations were quite similar in all the reported cases, the patients presenting symptoms of dysuria, difficulty in voiding, and retention of urine. Hematuria is not an early symptom, for these tumors do not tend to ulcerate. On study, the clinician finds evidence of obstruction of the vesical neck by tumor, as demonstrated by urethrograms, cystograms, rectal examination, and cystoscopy.

These neoplasms usually grow very rapidly, necessitating early surgical interference. Examination of a biopsy specimen, obtained at the emergency cystostomy to relieve obstruction, will confirm the diagnosis.

Case Reports

The following two cases illustrate the typical clinical course of this tumor in the lower urinary tract:

Case 1 (Flower and Fifth Avenue Hospital).—R. D., a white male infant, born October 11, 1939, was a second child, both of the mother's pregnancies and deliveries having been normal. Nothing unusual was noted about the child until 72 hours after birth, at which time he showed evidence of cyanosis of the legs with some distention of the abdomen. Careful examination at this time revealed no evidence of intracranial injury or other injury or disease. These symptoms increased so that when the child was 5 days old there was a painful and distended mass in the suprapubic area, which was partially reduced by catheterization. No difficulty was experienced in catheterizing the child.

A cystogram was made 8 days after birth (Fig. 4). Examination of this showed a patent urachus, a large bladder with a filling defect, and deformity in the region of the trigone. From then on it was necessary to catheterize the baby because of acute retention. On the nineteenth day after birth, an indurated, tender area developed around the umbilicus, which ruptured spontaneously 3 days later and drained urine. This urinary fistula from the urachus provided satisfactory drainage of the bladder, and catheterization of the urethra was discontinued.

On December 19 (65 days after birth), a cystostomy was performed and suprapubic drainage was established. At this time, a nodular mass of very firm consistency was found covering the floor of the bladder, with the greater concentration around the bladder neck. A biopsy was taken of



FIG. 1. Microphotograph showing the myofibrillae stained with phosphotungstic acid.

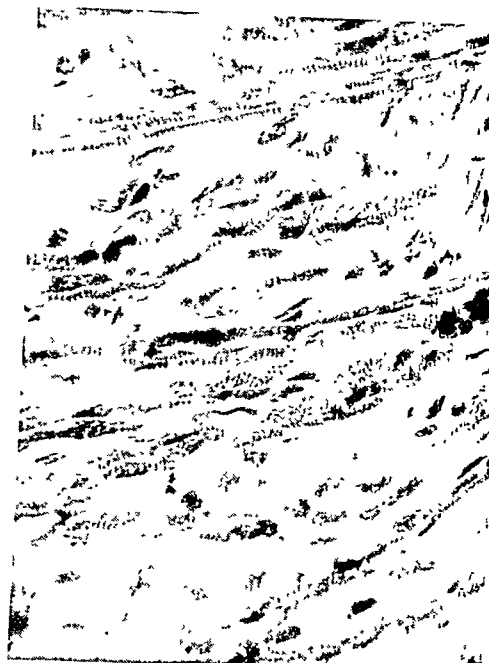


FIG. 2. Biopsy of surgical specimen. Microphotograph showing the myofibrillae stained with phosphotungstic acid.

this mass and the case was diagnosed as rhabdomyoma. The child was treated symptomatically until February 13, 1940, at which time he was discharged from the hospital with a draining suprapubic sinus.

Fourteen days later (139 days after birth), the patient was readmitted with symptoms of diarrhea, vomiting, and fever. He was still draining through the suprapubic sinus. A consultation of the surgical, pediatric, and urological staffs was held, and it was decided that if a second biopsy confirmed the diagnosis, a total cystectomy, with removal of the prostate and transplantation of the ureters, would offer this infant the best chance, since at this time there was marked infection of the urinary tract with bilateral dilatation of the ureters (Fig. 5). It was also decided that the transplantation into the bowel would be more likely to prove successful if the loop of the lower bowel were prepared by separating it from the fecal stream by means of a colostomy. A second biopsy was done, the diagnosis being rhabdomyosarcoma.

Five and one-half months (172 days) after birth, total cystectomy and prostatectomy were done, and both ureters were transplanted to the skin at the same operation.

The child did unusually well after this procedure so that, 1½ months later, a transverse colostomy was performed and the lower bowel was irrigated with sulfanilamide solution and saline. Two and one-half months after the cystectomy (8 months after birth), a right ureterosigmoid anastomosis was done. The child continued to progress

favorably, and one month later a left ureterosigmoid anastomosis was carried out. Following this operation, the child ran a low-grade fever and showed evidence of continued urinary infection. Sulfathiazole therapy and transfusions had little effect. The baby ran a downhill course and expired 11½ months after birth.

An autopsy was performed. It was concluded that death was caused by chronic bilateral pyelonephritis with terminal pneumonia. The only evidence of remaining rhabdomyosarcoma was found in the region of the stump of the distal urethra which was left following cystectomy and prostatectomy. This finding was microscopic.*

Case 2 (New York Hospital†).—L. S., a 2½-year-old white boy, was admitted to the Brady Urological Foundation and the Pediatric Service of the New York Hospital on August 31, 1937.

The following history was given by the family: About six months before the patient's admission to the hospital (when he was 2 years old), he began to have pain on urination and retention of urine. There was no hematuria. The urine was examined by several doctors and reported to be normal. At that time the child entered a hospital for catheterization and cystoscopy. The cystoscopic examination revealed a bladder tumor.

* Autopsy performed by Dr. William Youland's staff. (Dr. W. Youland, Dr. F. Speer, and Dr. E. Khoury are publishing a pathologic study of the operative and autopsy specimens.)

† From the Department of Urology (James Buchanan Brady Foundation) of the New York Hospital, and presented by the courtesy of Dr. O. S. Lowsley, director.



FIG. 3. Photograph of the surgical specimen, showing the bladder everted with the polypoid tumor mass on its floor.



FIG. 4. Cystogram of the bladder showing tumor on the floor and outlining the urachus.

Five months prior to his admission to the New York Hospital, a suprapubic cystostomy, with fulguration of the tumor, was done. This procedure was repeated twice thereafter, the last time being in July, 1937, one month before admission. A biopsy of the tumor removed was diagnosed as myoma. After the third operation the child was sent home with a suprapubic drainage tube in place. He was given three weeks of intensive x-ray treatment, which resulted in blistering his abdomen and caused him to be generally sick.

The tumor recurred rapidly after each operation and at the time of the child's admission to the New York Hospital it appeared to fill the entire bladder. At this time, he had pain on defecation and on attempting to void. Physical examination showed a well-developed but poorly nourished pale boy of 2½ years, fairly cooperative and alert but generally fretful. The general examination was essentially negative. Examination of the abdomen showed it to be soft and round, with no definite mass palpable. There was a suprapubic incision which drained urine and through which protruded a fleshy, red, irritated mass having the general appearance of polypoid tissue.

Complete laboratory studies were done, including platelet count, complete blood count, urinalysis, blood sugar, serum albumin and globulin, serum protein, urea nitrogen, and sodium chloride estimations. The only abnormal finding was a secondary anemia, with many white blood cells in the urine. This was treated by repeated small blood transfusions. Excretory urograms, done on the second hospital day, showed a functionless right kidney and beginning hydronephrosis of the left kidney.

On the eleventh hospital day, a right nephrostomy for drainage was done. The child withstood this procedure satisfactorily. He was given further transfusions, and on the twenty-first hospital day a total cystectomy and prostatectomy, with transplantation of the left ureter to the skin of the abdomen, was done. Gross examination of the bladder showed it to be entirely invaded by tumor, but there was no evidence of tumor in the prevesical spaces. Following this operation the child was given supportive treatment, including several more blood transfusions, sulfanilamide medication, and irrigation of his nephrostomy and ureteral tubes.

On the nineteenth postoperative day, the incision was reopened and a large amount of purulent material was found in the suprapubic region. This area was drained and irrigated with Dakin's solution. Thirty-eight days after the cystectomy, a small, firm tumor mass, about 1½ cm. in diameter, was noted in the incision. This grew rapidly and was removed six days later. Pathologic examination of the primary tumor and of this mass showed rhabdomyosarcoma in both instances.

About a month later, a second mass was removed, but another tumor mass appeared within five days. Approximately three months after the original operation, multiple tumor masses were noted under the skin, and the tumor mass from the incision had extended out of the anastomosis of the ureter in the skin. This mass grew rather rapidly and eventually closed off the ureter.

The child failed rapidly and expired about four months after his admission to the New York Hospital. No autopsy was granted.



Fig. 5. Excretory urogram showing the dilated kidney pelvis and ureters.

Discussion of Treatment

Although other sarcomas have benefited by roentgen therapy, rhabdomyosarcomas originating in this area have not been affected appreciably by such treatment. Indeed, in one of the reported cases, as well as in the second case presented here, roentgen therapy seems to have stimulated the growth of the tumor. Since the evidence is so strongly against these tumors being radiosensitive, one must conclude that roentgen therapy is definitely contraindicated. Such therapy has only increased the patient's symptoms.

At present, the only chance for a successful outcome appears to be early radical surgery. However, thus far one sees total failure in surgical procedures in rhabdomyosarcomas of the lower urinary tract. The question arises: "Why have these surgical attempts been failures?"

Generally speaking, discouraging results in surgery of malignant tumors have been due to one of three causes: (1) the tumors arise in locations where radical removal is technically impossible; (2) the growths metastasize early and before diagnosis; (3) early diagnosis is difficult and not often made. However, none of these seems to apply to the particular tumor under discussion.

Fortunately, the lesions arise in a location and extend in a direction most favorable for radical removal. Whether they originate in the prostate or bladder, the growths have been pedunculated into the bladder. The tumor, therefore, remains confined to the prostate and bladder for some time after symptoms are present—a fact well illustrated by both of the cases reported here. Metastasis to other parts of the body is exceptional. Metastasis by direct extension outside the bladder and prostate is slow to occur. Death usually results from obstruction to the urinary tract, with superimposed infection. The diagnosis, as a rule, is made early because the growth is invariably located near the bladder neck, and symptoms of vesical neck obstruction occur early in the course of the disease.

After careful analysis, one is forced to the conclusion that apparently radical surgery has failed because the surgeon has allowed too great a period to elapse between the time of diagnosis and the time of operation. This is borne out by the two cases reported here. In Case 1 the patient was operated upon five months after the diagnosis was made, and in Case 2, six months elapsed between the time of diagnosis and the time of radical surgical intervention. In the other cases reported, where radical surgery was attempted, a similar lapse of time occurred.

Comment

It is obvious that surgeons have hesitated to perform the radical operation of total cystectomy and prostatectomy because they have feared both the operation and its consequences. With increased experience with such operations, and greater success with ureteral transplants, will come increased assurance, and the hesitancy toward early operation will disappear.

It has been shown that rhabdomyosarcoma of the lower urinary tract is being diagnosed more frequently and at an early stage but that treatment has been 100 per cent unsuccessful. Success will be obtained by early radical operation. Furthermore, if the operation is done before dilatation and infection of the upper urinary tract have occurred, transplantation of the ureters will be successful, and the complications observed in the two cases reported here will be avoided.

Summary

Rhabdomyosarcoma of the lower urinary tract is defined, and its incidence of occurrence and symptoms are briefly considered. Two case reports are given. Treatment and the reasons for the failure of treatment in the past are discussed. It is concluded that early

radical operation will achieve the first successful treatment of this lesion.

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TRANSURETHRAL PROSTATECTOMY

WILLIAM A. MILNER, M.D., Albany, New York

FAULTS with any operative technic are usually the basis for devising new methods for handling the same condition. Transurethral resection was devised largely, I believe, to relieve the mortality, morbidity, and economic distress associated with methods employed up to that time in the treatment of prostatism. Like all new things, it has enjoyed a wave of overenthusiasm followed by the inevitable reaction of criticism. It has only within the last few years reached a stabilized position in urology where it is definitely considered by all to be of value in selected cases.

Unlike many other surgical procedures, its scope of usefulness is almost entirely dependent upon the ability and "knack" of the operator. This "knack" or ability is largely due to the operator's knowledge of the appearance of the various types of tissue encountered at the time of operation. With this experience, sections can be cut rapidly and clearly with a minimum amount of trauma and its attendant bleeding. Good results can be assured because one is able not only to remove the obstructing tissue but also, in most cases, to resect down to the surgical capsule.

There are three characteristic types of tissue encountered: (1) the fibrous structure of the vesical neck, (2) the homogeneous granular prostatic tissue, and (3) the appearance of the prostatic capsule.

The presence of residual urine from three to six weeks postoperatively almost invariably means that some obstructing tissue has not been removed. Ninety per cent of the cases will completely empty the bladder one week after operation.

Postoperative discomfort with symptoms of cystitis is almost invariably directly proportional to the amount of necrotic prostatic tissue present. The majority of patients will void in amounts

varying from 150 to 450 cc. per voiding. This does not indicate marked urgency or frequency. One case, in which 114 Gm. were removed in one sitting of an hour and six minutes, voided dirty urine for about six months. At the end of that time, he passed a piece of necrotic prostate weighing 5 Gm., and the urine cleared within forty-eight hours.

The type of instrument employed depends entirely upon the personal whims of the operator.

In our practice, practically all types of prostates are handled by this method. An occasional case of carcinoma is referred for total perineal prostatectomy to those who we feel are extremely capable with this procedure. Of the last 600 prostates operated upon, only three two-stage suprapubic operations have been done, and one of these required a preliminary cystotomy for the removal of a large stone.

Preoperative care is handled as carefully as it would be for any other type of prostatic surgery. Blood chemistry and phthalein excretion must be within normal limits, if possible. Catheter drainage for two or more days is required in all cases having more than 4 ounces of residual urine on admission. All infected cases are treated with indwelling catheters and frequent irrigations.

The Murphy drip method of decompression is used in all overdistended bladders. We have used this routinely for the past ten years and have felt that a few cases were definitely benefited by it.

Four cases that had high nonprotein nitrogen and creatinines and low phthalein outputs have been resected. Three of the patients are alive and well from three to five years postoperatively, and the fourth case died of pneumonia four years postoperatively.

Each patient is given a light breakfast before going to the operating room. Preoperative sedation is rarely employed, for it serves but to depress the blood pressure, and the patient who is in the proper frame of mind concerning his operation is better off without it.

The anesthesia is now routinely spinal—of pontocaine, 12 to 15 mg. in equal amounts of 10 per cent glucose. The first 39 cases were done under caudal and trans-sacral block. An occasional case is done under sodium pentathal. Blood pressure usually remains fairly constant. Drops in pressure are usually adequately handled by *simple oxygen inhalation*, although ephedrine is used if necessary.

Operation

Vasectomy is done routinely. In carcinoma with metastases, intravaginal orchidectomy is done after the resection has been completed. The results from this operation have been most gratifying. Those who have had pain from metastatic lesions are completely relieved. In one instance, there was a marked regression of the original growth when the patient was examined four months later.

The operation is never prolonged more than one hour, and the average 25 or 30 Gm. prostate can be resected in thirty minutes. Many larger glands weighing from 60 to 90 Gm. are removed in one hour's total operating time.

Postoperative Care.—All patients are given a high backrest upon return to their rooms. During the first four hours after operation, 1,000 cc. of subcutaneous saline is given. The catheter is connected to a closed irrigating apparatus and irrigated only as necessary. Most patients are given soft diet the day after the operation and are allowed out of bed on the second postoperative day. The distension in the Foley bag is usually dropped to just a sufficient amount to make it a self-retaining catheter on the night of the day of the operation. In a few cases, this is not done until the following day.

The Foley catheter is removed on the fifth postoperative day, and patients living reasonably close to the hospital are sent home on their seventh postoperative day. Those who live some distance or who have complications are kept for a longer period.

Biweekly bladder irrigations are done for a period of from four to eight weeks until the urine becomes clear. Sulfathiazole in doses of 1 Gm. three times a day for four days is of great value in clearing up the last bit of infection. It does not work well, however, until about the fifth or sixth week, or until such time as epithelialization has taken place in the resected area.

Report of Cases

A total of 1,093 resections have been done on 1,020 patients. Two or more resections have been required in 73 cases, or 7.1 per cent, and three resections have been required in 7 cases, or 0.6 per

cent. No case in the last 977 consecutive cases has required any other type of surgery to relieve the obstruction.

Residual Urine.—Fifty-five per cent of the cases have had complete urinary retention. The rest have had varying amounts of from a few ounces to 30 or 40 ounces with overflow.

Age.—The oldest case resected was 94. The youngest case was 26. In the latter, only a congenital contracture of the vesical neck was resected, leaving the prostate intact. This boy gave a history of having always had a "bashful bladder," with three attacks of complete retention. There have been 6 cases over 90, 89 over 80 and 438 over 70 years of age, with an average age of 67 for the entire group. The youngest true prostatic was only 47, but had 11 ounces of residual urine, and 32 Gm. of prostate were removed at operation.

Tissue Removed.—The average tissue removed from each of the last 500 cases has been 27.5 Gm. The largest amount removed at a single sitting was 114 Gm.

Pathology.—Carcinoma has been found in 151 cases, or 14.8 per cent. Benign hypertrophies have appeared in 869 cases, or 85.2 per cent.

Not a few carcinomas of the bladder have been discovered associated with the prostatic pathology. One female who had a contracture of the vesical neck with twenty ounces of residual urine was completely relieved by resection.

Complications.—Emboli have occurred seven times, with 3 deaths.

Septicemia caused one death. Ruptured bladder with sepsis caused 2 deaths in the first 50 cases. Ruptured bladder as a result of an attempt to evacuate blood clots has occurred twice. Both patients were operated on immediately and one lived. The other was not a good risk for extensive surgery and died of shock twelve hours later.

Cerebral hemorrhage occurred in one case and bronchopneumonia in 2. Heart failure was the most common complication causing death. Hemorrhage has caused some deaths in earlier cases.

Incontinence which could not be cured occurred in 2 cases. One was an 86-year-old man with benign hypertrophy, and the other a 76-year-old patient with carcinoma. Neither has complete incontinence but both must wear pads. Practically all cases of incontinence are due to insufficient tissue being removed, so that secondary resection will cure them.

Morbidity.—The average total hospital stay is about two weeks. This includes those patients that have long preoperative stays to be prepared, as well as those who have complications and those who are virtually homeless and must

TABLE 1.—ANALYSIS OF RESULTS OF 465 CASES REPORTED OUT OF 550 QUESTIONNAIRES

	Cases	Result Excellent	Result Fair	Result Poor	No Report of Result
Alive	294	273	10	11	
Dead*	131	70			61
Lost	40				40
Total	465	343	10	11	101

* Only excellent results confirmed by letter used.

be able to take care of themselves when they leave.

Mortality.—There have been 28 deaths, or 2.74 per cent, for the entire group. For the last 898 cases, there have been 15 deaths, or 2.1 per cent.

End Results.—Over a period of ten years, 550 cases were taken at random out of the group operated upon. Questionnaires were sent to each of these patients. The questions asked included the patient's general condition, the degree of discomfort in the bladder, the number of day voidings and night voidings, character of the urinary stream, and the character of the control of urine. Of the 550 questionnaires sent out, 465 were returned (see Table 1).

From the questionnaires sent to the 102 carcinoma patients, the results are given in Table 2.

Recurrence, exclusive of a few carcinoma cases, is the exception. Some early cases have required a second resection because insufficient

TABLE 2.—ANALYSIS OF 102 CARCINOMA CASES (15 were lost; 87 were reported upon)

Years	Dead	Alive
1	19	
2	14	14
3	13	4
4	4	4
5	3	3
6		1
7		1
	53	27

Dead unknown date—7

tissue was removed at the first sitting. Fifteen cases that had suprapubic prostatectomy have been resected with marked improvement.

Conclusions

1. In our hands, resection is the operation of choice on practically all prostates.
 2. The present lack of fear of prostatic surgery on the part of the patient is due largely to resection.
 3. Good results depend upon the ability to recognize tissue when it is encountered and to resect down to the surgical capsule.
 4. Postoperative cystitis symptoms are almost invariably due to leaving tissue to which the blood supply has been destroyed.
- All cases of postoperative incontinence should be cystoscoped and any tissue impinging within the external sphincter should be removed.
- No patient capable of living through his pre-operative preparation is too poor a risk to resect.

A SUMMARY OF ENDOCRINE EFFECTS IN ADVANCED PROSTATIC CANCER*

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IN SUMMARIZING our work on endocrine effects in advanced prostatic cancer, I wish to develop two points: first, that cancer of the prostate is often extremely sensitive to androgens (so that advantage may be taken of this fact in the practical therapeutic management of the disease); second, that the study of any disease, and especially cancer, is greatly expedited by developing objective laboratory methods of following its course.

Read by invitation at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942. Part of a symposium on "Surgery of the Prostate."

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*The investigation on which this paper is based was supported by a grant from the Committee for Research in Problems of Sex, the National Research Council.

It is necessary to discuss briefly certain enzymes capable of hydrolyzing phosphoric esters, the phosphatases. There are two of these enzymes, widely scattered through human tissue in small amounts, called acid and alkaline phosphatase because of certain chemical characteristics. These enzymes, however, are present in rich concentration in certain tissues: alkaline phosphatase in bone; acid phosphatase in the prostate gland of adult men and monkeys. This rich concentration of acid phosphatase in the adult prostate gland, then, is a secondary sex characteristic of a chemical nature. It was discovered in 1935 by Kutscher and Wolbergs. Elevations of alkaline phosphatase in serum occur in certain bone diseases when there is abnormal osteoplastic activity, such as Paget's

disease, rickets, and osteogenic sarcoma. Increase of acid phosphatase occurs in only one condition—cancer of the prostate with metastases to bone, as was shown by A. B. and E. B. Gutman and by Barringer and Woodard. When prostatic cancer is located in the bone marrow, the secretions of these cells find their way into the blood and are not readily disposed of, so that the acid phosphatase value increases above normal.

A step forward in this problem was the development by my colleague, George Gomori, of methods of staining the site of the phosphatases in tissue. While the prostate of the newborn child contains small amounts of acid phosphatase, the adult prostate contains large amounts of this enzyme. Carcinoma of the prostate likewise exhibits rich concentrations of the enzyme in the epithelial cells. It was thus recognized that prostatic cancer is a cancer of adult epithelial cells and not a reversion to a more primitive state.

In a series of 47 men with advanced prostatic cancer, it was found that 24 had elevation of acid and alkaline phosphatases, while in the other 23 men the enzymes were in the normal ranges. By frequent observation of the serum phosphatases of men who had far advanced prostatic cancer with elevation of the serum phosphatases, it was found that decreasing the amount or the activity of the androgens by castration or by administration of estrogen (stilbestrol, 1 mg. daily) caused a decrease of serum acid phosphatase values, whereas administration of androgen (testosterone propionate, 25 mg. daily) caused exacerbation of the serum phosphatase values and of the disease.

The beneficial results of decreasing the androgens were not limited to the serum phosphatases. Forty-five men with advanced and metastatic cancer have been treated by castration since October, 1939. When the cancer has been discovered early, total perineal prostatectomy has been done.

Certain benefits usually follow orchiectomy. Among the earliest changes are an increased appetite and relief of pain. These effects are often seen within several days following castration. They result in a gain in weight and an improvement in the anemia. Frequently there is a decrease of the primary tumor so that the hard, nodular, craggy prostate becomes smooth and soft and decreases markedly in size. Changes often occur in the bony metastases on roentgenographic examination, with the metastatic lesions usually undergoing increased calcification within several months after orchiectomy. This increased density is often followed by a stabilization in growth or by disappearance of the metastases

to x-ray examination. Other objective evidence of improvement that occurred in this series includes the disappearance in two cases of paralysis due to compression from metastasis in the central nervous system and in two other cases the disappearance of enlarged lymph nodes on the site of metastases.

Certain undesirable symptoms also occur, notably abolition of the adult sexual capacity and the onset of hot flashes similar to menopausal changes in women, and which likewise can be mitigated by estrogen administration (stilbestrol, 1 mg. daily by mouth for two weeks).

All in all, the improvement which occurs following orchiectomy in cancer of the prostate far outweighs the undesirable effects. It should be emphasized, however, that the results are not uniformly successful.

In the entire series of 45 patients subjected to orchiectomy, there have been 8 deaths, all in men with extensive metastases to bone. In 4 of these men, carcinomatosis was the principle cause of death, while in the others it was of secondary importance. From a clinical standpoint, 31 men have had a sustained improvement lasting as long as thirty months; 9 men have had a temporary improvement followed by recurrence of symptoms; and in 5 men there was no improvement following castration.

In 11 men of the group of 21 patients operated upon twelve to thirty months ago, there has been significant improvement. These patients are free from symptoms, acid and alkaline phosphatase values of serum are in or near the normal range, there has been complete or partial resolution of x-ray evidence of osseous metastases, and a great decrease is found in the size and in the stony consistency of the primary neoplasm on rectal examination. In 4 patients extensive osseous metastases have completely disappeared to radiographic examination.

The question of inactivation of androgens by estrogens in prostatic cancer as opposed to castration naturally arises. This type of endocrine castration as opposed to surgical castration is at first glance attractive, since it can be carried out without surgery and is financially economical. However, it is unsound, since the inhibition of the androgens by estrogens is not complete and a complete inhibition or elimination of androgens is the basis for the modern treatment of advanced prostatic cancer. Moreover, this partial inhibition is temporary, and estrogen must be administered for long periods of time. Furthermore, in many species the administration of estrogen to males for an extended length of time is in itself a carcinogenic. While it was first shown in this laboratory that beneficial results occur in prostatic cancer from both surgical castration or

estrogen administration, we feel that bilateral orchiectomy is the method of choice as a basic treatment in advanced or metastatic prostatic cancer.

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LATE RESULTS FOLLOWING TRANSURETHRAL PROSTATIC RESECTION

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THE question as to whether or not the results obtained from the transurethral resection of the prostate are permanent is one most commonly asked by the medical profession and the laity alike. A voluminous literature has accumulated during the past ten years on the subject of this method of relieving prostatic obstruction, but the majority of the writings have been given to the description of technic and more particularly to reports of large numbers of patients with extremely low rates of mortality. The majority of the end results reported up to this time concern the status of the patient only a few months after his operation. Almost nothing has been written on the subject of the condition of the patient in regard to his urinary symptoms many years after his surgery. How long was he free of frequency and distress? How long was he able to empty his bladder completely? Did he have to have other prostatic surgery before complete relief of symptoms was obtained? Did he consider the condition for which he had originally consulted his physician to be cured? These and other questions of this type have not, up to this time, been answered.

It must be stated at the outset that this study is not in any way to be construed as a comparative analysis of different methods of removing prostatic obstruction but is presented solely as a recounting of experiences in the use of the transurethral operation.

In an effort to answer some of these questions and to obtain as nearly as possible the true end results in a group of private patients subjected to prostatic resection, a study has been made covering a period of time between 1932, when the procedure first came into vogue, and the latter part of 1941.

The information which is to follow (Table 1) was collected through the medium of questionnaires sent to 483 private patients. Of these 483, 407 were traced. One hundred and fifteen were found to have died from within a few months to nine years or more after leaving the hospital. Data obtained on 76 were insufficient for tabulation on the results of their surgery. According to the patients' own statements, 160 of the total 252 who were contacted stated that they were satisfied with the results of their surgery. Nineteen stated that they were definitely dissatisfied because they had not been entirely relieved of their symptoms. Although they complained of having to arise more often at night than they thought necessary, 18 stated that they were partially satisfied. Intelligible replies were received from 252, and of this number 209 presented themselves for examination. Considering the transient type of population in the community in which this study was made, it is felt that this percentage of contacts was fairly high. Only those patients who were examined or who sent in intelligible answers are to be considered.

It is noteworthy that during this period between 1932 and late 1941, only 2 patients with prostatism of a sufficient consequence to demand surgery were refused operation because of associated complications. Based upon the criteria of acceptability for surgery, it is felt that a very large number of these patients would have been denied any type of prostatic surgery other than transurethral resection because of such complica-

TABLE 1

Number of patients undergoing resection	483
Number of patients traced	407
Number of patients not traced	76
Number of patients known to be living	252
Number dead since leaving hospital	115
Number satisfied with surgery	160
Number dissatisfied	19
Number partially satisfied	18

TABLE 2.—CAUSES OF DEATH AFTER DISCHARGE FROM HOSPITAL

Cardiac failure	35
Multiple carbuncles	1
Cerebral hemorrhage	6
Cancer—prostate	27
Cancer—lung	1
General debility	4
Pyelonephritis	8
Pneumonia	2
Diabetes	3
Unknown	28
Total	115

TABLE 3.—PATIENTS GROUPED ACCORDING TO AGE

Age		Still Living
40 to 49	8	7
50 to 59	44	23
60 to 69	179	97
70 to 79	203	108
80 and over	49	17
Total	483	Total 252

tions as advanced cardiac disease, hemiplegia, diabetes, etc. The fact that many of these patients came to the community in extreme old age and in ill health also added to the hazards attending their surgery. The surgical mortality rate of this group was 8.3 per cent, which is higher than that quoted by other writers for most series of this type.

The causes of death after discharge from the hospital, of which 115 are known to have occurred, are given in Table 2.

Transurethral resections (Table 3) were performed on 8 patients between the ages of 40 and 49; 44 patients between 50 and 59; 179 patients between 60 and 69; 203 patients between 70 and 79; and 49 resections were performed on patients of 80 years and over, the oldest being 91. In this group of patients of advanced age 17 are still living.

A yearly record of the total number of transurethral resections, together with the mortality rates, appears in Table 4.

Of the 483 patients treated (Table 5), a total of 576 prostatic resections were found necessary for one cause or another before relief was obtained.

Multiple operations were planned on 31, but more were required, increasing the number to 39, because of the unusual size of the gland. The remaining number, representing 452 patients, had only one resection for what was believed at the time to afford satisfactory relief of the obstruction. Secondary operation, because of the insufficient removal or the regrowth of tissue, was found necessary on 44 patients who returned to the hospital after their original operation. Of these 44, there was one patient who returned six different times for removal of rapid regrowth of tissue over a period of six years. There were 2 patients who were readmitted four times for re-

current growth over a period of seven or eight years; and 4 patients who were readmitted three times over a period of five to eight years for additional removal of tissue. The remaining patients who returned for the removal of additional tissue are as follows:

1 patient	returned	8 years later
2 patients	returned	7 years later
1 patient	returned	5 years later
6 patients	returned	4 years later
5 patients	returned	3 years later
7 patients	returned	2 years later
8 patients	returned	1 year later
7 patients	returned	6 months to 1 year later

It is interesting to note that 46 of the 483 patients had had previous prostatic surgery elsewhere, in time intervals from twenty years to a few months. Six patients had undergone suprapubic removal, and 6 had undergone perineal prostatectomies. Thirty-one had previously had transurethral resections performed.

The smallest amount of tissue removed to afford relief from obstruction was 1 Gm., and the largest amount removed from any one patient totaled 117 Gm. This rather large amount was removed in three resections from a patient 57 years of age. It is interesting to note that, after five years, cystoscopic examination reveals no tendency whatsoever toward regrowth of prostatic tissue. The average weight of prostatic tissue removed from the first 250 patients was 12.4 Gm., and from the last 233 patients the average was 15.6 Gm. Twenty-seven patients underwent the removal of vesical calculi by litholapaxy or cystotomy, either at the time of the resection or during their initial hospital stay. The average number of years of survival after surgery was 3.34 years. This does not include deaths in the hospital.

The causes of death associated with surgery or following surgery are shown in Table 6.

Complications of a widely diverse nature marked the postoperative course of 172 of the total number operated upon. Of this number 66 might be said to have had major surgical complications, from which all recovered, and 71 had minor complications. The 66 major surgical complications are listed in Table 7.

Those patients showing an elevation of temperature above 102 F., generally associated with chills, were 71 in number. Postoperative urethral strictures were found to be present in 35 patients.

On examination of one or two sections of tissue, malignant prostates were diagnosed in 45 patients (Table 8), and 6 more were diagnosed malignancies upon examination of additional tissue—a total of 51 malignant prostates diagnosed at the time of operation.

TABLE 4.—CHRONOLOGIC SURVEY OF PROSTATIC RESECTIONS

Year	No. of Resections	Rate of Mortality	No. Still Living Age When Operated					Total Living	Total Dead	Not Traced
			40-49	50-59	60-69	70-79	80+			
1932	14	7.1%	..	2	4	3	..	9	3	2
1933	28	7.1%	..	2	..	5	..	7	10	11
1934	35	8.5%	..	..	7	5	..	12	9	14
1935	37	8.0%	..	6	6	5	..	17	9	11
1936	42	11.8%	..	1	5	6	1	13	22	7
1937	47	6.0%	1	3	13	9	1	27	12	8
1938	58	15.5%	..	2	8	17	3	30	20	8
1939	66	7.5%	..	2	11	16	3	32	26	8
1940	73	5.4%	3	2	23	19	2	49	20	4
1941	83	6.0%	3	5	20	23	7	58	23	2
Average		8.3%								

Of the number diagnosed as having benign prostates, 31 returned later with unmistakable evidence of malignant changes which were overlooked at the time of the first examination. Of these, 9 had additional tissue removed.

Of the number of patients with known carcinoma of the prostate at the time of operation, 16 are now living and 24 are dead.

Summary and Conclusions

The above information represents only pure factual reporting and is in no sense of the word intended as a comparative study. It is only the representation of experiences gained by as accurate a study as possible of patients undergoing transurethral prostatic resection from the writer's first experience with the operation in 1932, up to and including 1941.

The very low mortality rate associated with this method of prostatic surgery, so many times reported by others, is not here substantiated. The most careful attention to the most advanced operative technic and preparation of the patient has been studiously followed. Not one patient in the entire number was subjected to inhalation anesthesia. There was not one complication or fatality that could be attributed to the anesthetic. All patients in this group were private patients receiving every advantage offered by good hospital and nursing care.

Several years later, cystoscopic examination showed us evidence of regrowth in patients who stated that they were completely relieved of their symptoms and upon whom complete resection had been performed. By complete resection is meant the removal of all obstructing tissue down to the fibers of the prostatic capsule in all directions and in all quadrants of the vesical outlet. The patients who returned with obstructive symptoms years after the original operation were invariably found to have developed hypertrophy in that part of the prostate which was not interfered with at the original operation. The patients who returned a few months or a year later because they were never completely relieved

TABLE 5

Total number of patients	483
Total number of resections	576
Number requiring 1 resection	395
Number requiring 2 resections—planned	39
Number requiring 3 resections	5
Number readmitted because of recurrence or insufficient removal of tissue (benign)	44
Number having previous surgery elsewhere	46
Suprapubic prostatectomy	6
Perineal prostatectomy	6
Transurethral resection	34
Number admitted in complete retention	83
Number requiring litholapaxy for vesical calculi	27
Average weight of prostatic tissue removed:	
First 250 cases: 12.4 Gm.	
Next 233 cases: 15.6 Gm.	

TABLE 6.—MORTALITY RATE (HOSPITAL DEATHS ONLY)—8.3%

Causes	
Cardiac failure	11
Hemorrhage (prostatic)	2
Emboli	6
Uremia	9
Pneumonia	2
Cerebral hemorrhage	3
Shock	6
Peritonitis	1
Total	40

were usually those from whom not enough prostatic tissue had been removed.

The morbidity associated with prostatic resection has been one of the most disappointing aftereffects. Persistent pyuria, resulting in frequency, burning, and nocturia, has been a discouraging complaint in a large majority of all cases. The pathologic as well as bacteriologic study of the tissue removed has led to the belief that the pyuria is due far more often to the leaving behind of infected bits of prostatic tissue than to the introduction of infection during the operation or immediately following.

It has been found that the pathologist is at a distinct disadvantage in making a correct diagnosis of the tissue removed by resection unless practically every section is examined. Many incipient carcinomata are undoubtedly overlooked as evidenced by the unmistakable signs of malignant processes in later years. Many of these patients would have had a much better chance for cure had they undergone total prostatectomy.

TABLE 7.—TOTAL SURGICAL COMPLICATIONS (WITH RECOVERY)—172

Major surgical complications	66
Hemorrhage (prostatic)	15
Shock	24
Ruptured bladder	2
Atonic bladder (spinal anesthesia)	2
Abscess—periurethral	2
Fistulae—penoscrotal	8
Pneumonia	2
Pyelonephritis	2
Uremia	3
Extravasation urine	5
Encephalitis	3
Minor surgical complications	2
Chills, temperature over 102 F., bladder spasms, etc.	71
Postoperative urethral strictures	35

TABLE 8

NUMBER DIAGNOSED MALIGNANT AT TIME OF SURGERY			51
NUMBER DIAGNOSED BENIGN AND LATER PROVED MALIGNANT			31
NUMBER WITH MALIGNANCIES, STILL LIVING			16
Year Diagnosed	No. of Patients	Years Living	
1932	1	10	
1937	1	5	
1938	1	4	
1939	2	3	
1940	4	2	
1941	7	1 year or less	
Total	16		

It is our feeling that it is a mistake to consider that the average urethra will easily accommodate the size 28 F resectoscope. Many of these sheaths more nearly approach size 29 F. Practically all of the strictures which follow the operation are the result of too large an instrument being used. An operating instrument having a sheath of no larger size than 26 or 27 F would eliminate most of these strictures. The 24 F resectoscope carries too flexible a loop to permit of a very satisfactory resection, except in very small glands or median bars.

Probably the most important conclusion to be gained from this study is that a great many more patients with severe organic diseases were given the opportunity for relief of their urinary obstruction by the use of resection, wherein other methods of removal may have been considered too hazardous. It is in this narrow field of borderline patients that we feel that prostatic resection offers an advantage over other methods of prostatectomy.

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Discussion

Dr. Albert M. Crance, *Geneva, New York*—I wish to acknowledge my sincere appreciation of your invitation to take part in the discussion of this excellent symposium which has been presented to us this morning. All of the speakers are to be congratulated.

The paper on "Rhabdomyosarcoma" by Dr. Robert W. Hunt brings to light the fact that we must always be on the alert for the unusual. I will leave the discussion of the two excellent papers on "Transurethral Prostatectomy" by Dr. Milner and the other by Drs. Orr and Kundert to the other discussers who are possibly more enthusiastic about resections than I am. They should both be congratulated upon their results. Personally, however, I have happened to see quite a number of patients at the office who have been resected by able urologists and who are far from satisfied or they would never have appeared. Those patients who consult another urologist after resection do so for just one reason. Most of them are still bleeding with each voiding or their stream is no better than it was or they are constantly having to get up at night and voiding frequently during the day. Dr. Orr in his very excellent paper on the results of resection unhesitatingly admits that quite an appreciable percentage were definitely dissatisfied with their results.

In passing over this subject briefly, it would not seem entirely out of order to mention that we still have today three methods of attack in so far as prostatic surgery is concerned—namely, suprapubic prostatectomy, perineal prostatectomy, and resection. If one individual happens to favor one method

over the other, that is certainly his privilege. I believe I am not alone in the opinion that there is a tendency on the part of some to attempt resection in the large obstructive adenomas of the prostate, which were probably much better candidates for prostatectomy than they were for resection. In carcinoma of the prostate with obstruction, resection is ideal. This brings us up to the paper by Dr. Huggins, which I should like to discuss more fully.

Since returning from our branch meeting in Hamilton, Canada, last September [1941], at which time I became thoroughly convinced that Dr. Huggins really had something, I have had the opportunity of following 3 cases, the first of which I shall use to close my discussion. In one of the cases there has been sufficient time to see the blood acid phosphatase drop from 21 to 2.7, with a decided decrease in the size and hardness of the prostatic carcinoma and a marked increase in weight and appetite, although this patient's general condition is not as yet anything to boast of. The third case, done only last month, is showing definite improvement in several ways, but, of course, this case is too recent to be of any value.

It occurred to me some time ago that no one, at least to my knowledge, has tried to prove through research in the literature that Dr. Huggins might be wrong. I therefore made an attempt, at least, to find any articles which might possibly show that cancer of the prostate actually does develop in the eunuch. In our *History of Urology*, which was edited by the late Bransford Lewis, we find that there is no authentic description of prostatic carcinoma before the year 1861. Therefore, ecclesiastic

literature on eunuchs is of no value. At my request an apparently thorough search for material on the subject was made by the librarians of the State Medical Library, the A.M.A. Library, the New York Academy of Medicine, and the American College of Surgeons. I asked them this question: "I am asking you to give me a summary of the literature you may have regarding the question as to whether or not carcinoma of the prostate ever existed among eunuchs." I shall endeavor to give you briefly what little I was able to obtain in the review of all the literature I could find which might possibly have a bearing on our subject.

Out of a great many I was able to find the following statements: Woglom,¹ in his article on "Castration and Sarcogenesis," states in his conclusions that under the conditions of the experiment, prepubertal castration neither augments nor diminishes the susceptibility to methylcholanthrene sarcoma in male mice. Here again, however, the experiments carried out by Woglom mention only one case in which the condition developed in the prostate 150 days after castration and after the injection of benzpyrene, which was done on the same day. He outlines this experiment as having been done by Moore and Melchionna and reported by them in the *American Journal of Cancer* 30: 731 (1937). Onuf,² in 1912, describes the subject of eunuchoidism rather thoroughly, but no mention is made of its relation to carcinoma of the prostate. However, in an apparently well-prepared series of papers in which the author made a review of eunuchs, including reports gathered from several foreign countries, the fact that carcinoma of the prostate is not mentioned among them may in itself be of some value. Wagner,³ in a Danish journal in 1932, reported that his experiments found a reduced resistance to subcutaneous carcinoma in castrates, but, unfortunately, his experiments do not mention the prostate. Sauerbruch and Knake⁴ reported in a German journal in 1937 that in experiments with animals they found that out of 60 castrated animals, malignant tumors were found in 8, 5 of which had metastasis. The experiments were done by irritating wounds with injections of lactic acid or cholesterol. Forty control animals which had similar injections, but which were not castrated, showed only one malignant tumor without metastasis. They believe that their experiment clearly shows that damage to the sexual function is one of the general conditions that causes tumors. They further state in their summary that one may connect susceptibility to tumor in old age with the decrease of sexual function.

Again I had hopes, from the title of their paper, that something pertaining to the prostate might be found. Judging from all of the literature that I have been able to obtain and review, Dr. Huggins certainly should consider himself as having clear sailing because I believe it is impossible to find any real scientific evidence to prove that he might be wrong. I might also quote from a personal letter from Dr. James B. Hamilton of the Department of Anatomy at Yale: "I, too, have searched the literature with regard to the incidence of prostatic carcinoma in eunuchs. Discussion of this subject is practically

nil, with legitimate accounts having been made with reference to only two or three castrate men, who had no carcinoma. Our group has been studying a series of approximately two hundred eunuchs, but our work is incomplete as yet and many of the men are of relatively young ages. I am sorry that we are not able to be of any material use to you at present but can sympathize with the importance of the point of view you are pursuing."

In closing, I should like to cite briefly a summary of my first case. E. C., a farmer aged 71, was admitted to the Geneva General Hospital on August 7, 1941, with an acute retention and a history of difficulty in voiding for the past few months. Rectal examination revealed a very large, hard, fixed carcinomatous mass involving all of the palpable adjacent structures. The mass was of stone hardness. An indwelling catheter was inserted with considerable difficulty because of the hard character of the prostatic urethra. In fact, the catheter used was a silk-woven Coude. I chose to do a resection suprapubically on August 12, 1941, which, incidentally, confirmed the diagnosis by the sections made in the many pieces removed. A large indwelling catheter was left postoperatively, as well as a suprapubic tube, which was removed on the seventh day. It was nearly three weeks before he voided. Returning from our Hamilton meeting on September 14, 1941, fully convinced that Dr. Huggins had something on the ball, I convinced the patient of the necessity for the operation, and on September 16, I did a bilateral castration. Three days after this operation he was complaining that he wanted more food on his trays. His weight was then 141 pounds. He was discharged on September 23, with his suprapubic wound entirely healed. His voidings have been made every six to eight weeks since his discharge, and the change in the character of the mass has been nothing short of miraculous. He was in my office on April 3, 1942, and there was no further rectal evidence of his prostatic carcinoma. His weight is now 185½ pounds, a gain of 44½ pounds. He is apparently perfectly well, with an excellent appetite and an appearance of general well-being. In the office he remarked: "Don't keep me long, Doc, because I've got a hell-of-a-lot of plowin' to do!"

References

1. Woglom, William H.: *A. J. Cancer* 40: 3 (Nov.) 1940.
2. Onuf, B.: *Am. J. Dermat. & Genito-Urin. Dis.* 16: 459, 517, 590 (1912).
3. Wagner, A.: *Hospitalstid.* 75: 817, 829 (1932).
4. Von Prof. Dr. Sauerbruch und Fr. Dr. med. Knake.: *Bericht über weitere Ergebnisse experimenteller Tumorforschung* 189. Band (1937).

Dr. J. Sydney Ritter, *New York City*—I agree with Dr. Milner in that preoperative preparation is essential in the prostatic, regardless of the type of surgery to be employed. Many of us have attempted resection down to the surgical capsule, but unfortunately one complication, that of extravasation, which I did not hear referred to by Dr. Milner, has clouded the picture. Recently I have advocated a return to the McCarthy visualized punch for the floor of the prostatic urethra at the trigone, at which point extravasation, if it does occur, is not brought to light for several days and may lead to serious consequences.

Relative to spinal anesthesia, I feel that muscular relaxation is too great and a false sense of a complete resection is gained, whereas under pentothal sodium this muscular relaxation is not obtained, and a true picture of the ultimate result can be noted on the operating table.

Recently I have omitted postoperative irrigations and have resorted to the forcing of fluids by mouth or intravenously. This, I feel, decreases the muscular activity of the bladder and permits coagulation of the capillary bleeding.

I should at this time emphasize the debt we owe to Dr. Huggins for his contribution in the treatment of carcinoma of the prostate gland. The fact that cancer of the prostate can be relieved when his suggestions are carried out, particularly in those patients with evidences of metastasis, is a most valuable asset.

Since last June [1941] Dr. S. E. Kramer and I have followed 10 cases of this pathologic condition, heretofore apparently hopeless when complicated with metastasis. Our patients have presented symptoms varying from complete retention to those with no retention of urine but with symptoms produced by the metastatic lesions.

In most of our cases the acid phosphatase was elevated. The more marked the metastatic lesions, the higher the blood content of acid phosphatase.

Interestingly enough, within two or three days after orchiectomy these patients were relieved of many of their symptoms. Those with acute retention were able to void before the fourth postoperative day. Within two weeks, pain in those with metastases had subsided.

These results are more encouraging than those of Dr. Huggins; however, I assure you that this is not because of the individual but because of the fact that Dr. Huggins has accepted cases that were in the extreme stages of the disease. I have been informed that patients have been referred to him just short of the moribund stage. This no doubt is a big factor in his results.

At this time I wish to report two cases of prime importance:

Case 1.—The patient reported with the usual symptoms of prostatism, with a diagnosis of benign prostatic hypertrophy being made. No blood

phosphatase was done on this patient, on whom, for instruction purposes, a perineal prostatectomy was performed. On pathologic examination an early carcinomatous lesion in the prostate was found. We later did a bilateral orchiectomy, and this patient is now alive and well.

I mention this case because I believe the time has come when, together with blood chemistry and other laboratory processes employed in the preoperative care of the prostatic, blood phosphatase, both alkaline and acid, should be done.

Case 2.—This is a patient in whom a diagnosis of cancer of the prostate with bony metastases had been made and in whom the alkaline and acid phosphatase were higher than normal, making it somewhat difficult to exclude carcinoma of the prostate as a diagnosis. A total prostatectomy was done and examined histologically. No evidences of carcinoma in the prostate were demonstrable. It is interesting to note that approximately one year after the prostatectomy, the extensive lesions noted in the skull had diminished. The patient is in excellent condition. No castration was performed.

This case has led me to the belief that perineal section should be done for biopsy purposes to confirm pathologically the presence of malignancy before orchiectomy. The diagnosis in this last case was that of Paget's disease.

Will the removal of the prostate have a beneficial effect on this disease? It is my opinion that more study should be carried out in the treatment of Paget's disease from an endocrine point of view. I wonder whether or not Dr. Huggins has done any work along this line. Dr. H. H. Ritter and I have begun a study on the effect of the prostate in Paget's disease.

In the paper by Drs. Orr and Kundert the question of carcinoma once more occupies the center of the stage. The specimens obtained by transurethral resection should not be difficult to study pathologically if the technic suggested by Dr. S. E. Kramer and myself is employed. Postoperative stricture does occur and I believe it advisable that one employ the No. 24 French instrument. If this is unsuitable for introduction, then the Nesbitt technic of external urethrotomy, I believe, would decrease the occurrence of postresection stricture.

BIGGS MEMORIAL LECTURER CHOSEN

Lt. Col. Paul F. Russell, Medical Department of the U.S. Army, will deliver the annual Hermann M. Biggs Memorial Lecture, which will be heard this year at 8:30 P.M., April 1. His subject will be "Malaria and Its Influence on World Health." Open to the general public, the lecture will be given

in Hosack Hall of the New York Academy of Medicine under the sponsorship of the Committee on Public Health Relations.

Lt. Col. Russell is Chief of the Tropical Disease and Malaria Control Section, Division of Preventive Medicine, Office of the Surgeon General.

MEETING OF ORAL DIAGNOSIS SOCIETY

Members of the New York Society for Oral Diagnosis will hold their next meeting at 8:30 P.M., March 17 in Squibb Hall, Squibb Building, 745

Fifth Avenue. The April meeting will be on April 14 at 9:00 p.m. The meetings are open to members of both the medical and dental professions.

Panel Discussion—School Health Services

What's Wrong with Our School Health Service?

HAROLD H. MITCHELL, M.D., Long Island City, New York

IT REQUIRES no inspiration to predict that there will be a shortage of doctors and nurses as the war advances. Already there are increased taxes and demands for cutting the cost of public health services. You know the result of such a situation. Every layman expects the doctor to work harder and in some way arrange to examine a larger number of patients with the same attention he would give if he had more time and fewer patients. It is rare indeed that the layman is willing to accept the idea that the physician should take precautions against attempting too much or that he should limit the number of examinations in order to safeguard their quality.

The physician's job in the schools of New York State is generally one continuous round of examinations, and yet our children need something more than examinations if we are to avoid the medical neglect that occurs all too often. Medical advice and guidance in the use of medical facilities are really essential to civilian morale. If we are to do a better job than the Nazis and the Japs in using all our resources, then the doctor on the home front must have something to say about the health program in the schools.

It is distinctly the job of the medical profession to protect the public from medical service that attempts too much, that promises more than it can deliver, or that does not meet the needs of the children. We have been accused of standing in the way of progress when we have opposed crackpot schemes that assumed that the whole problem of medical care would be solved by the magic words—health insurance. We have often failed to make clear that what we are really opposed to is the mistake of promising more than can be delivered. We have opposed European health insurance schemes that interfere with the quality of service. Too often we have failed to make clear how generally and wholeheartedly we are for sound medical guidance and consultation service in the schools.

The "Platform" of the A.M.A. definitely favors such a service in the schools. This stand, while it does not specify what I call a medical guidance and consultation service in the schools, does

make very clear those principles that call for expansion and extension of this kind of public health service. In fact the kind of school service that I propose to discuss does not conflict with any one of the A.M.A. principles in the slightest degree, and if we make our point of view clear, I believe that you will agree that medical advice and guidance for school staff, and parents is a contribution to public health that is essential to our American educational system. Indeed, we need it to help beat the Axis and to maintain our democratic way of living.

It is my contention that our usual responsibility to promote the principles of the A.M.A. and to speak out against unsound public health service in the schools is now a more serious duty than ever before because the health of the whole population is inextricably tied up with winning the war. We must make clear the fact that the medical profession must decide the important matter of the quality of medical service. The whole future of medical practice is dependent upon whether the medical profession shall determine the character of medical service or whether physicians must work under lay direction without regard for conditions that may interfere with the quality of medical judgment. If we speak out on this school health problem at this time, we have an opportunity to let the public know that organized medicine is earnestly concerned with the public welfare. We have an opportunity to make clear that the A.M.A. principles were established to protect the public health. In fact, we face the need for a campaign to bring about medical leadership where formerly there has been unwise lay control that interferes with quality of medical service.

In order to maintain high standards of medical advice in the schools, the medical profession must decide: how many children a doctor can examine in a given time; how much time is needed to get all the significant facts in a medical history; how much time the doctor needs to explain the child's condition to the parent; how much time he must have to interpret a case to the school authorities; and how much clerical and nonmedical help the physician should have for efficient service. If the medical profession is to decide these important questions effectively, the decision must be made locally according to the staff available, and according to the needs of

Read at the panel discussion on "School Health Services" at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942.

the children. The dicta of a state or any other distant office cannot answer these questions.

Our State Medical Society has gone on record as favoring Health Department administration for the health service in the schools, but there has been no real campaign to bring this change about by legislation. We know that the State Education Department is not ready to give up this power. Such a change is likely to come and should come only after long and careful consideration, if at all. We should, therefore, speak out very clearly upon the principles that are involved and not assume that this legislative change is the crux of the whole matter. Health Department administration in this State might make it easier to have local determination of needs and medical leadership to decide the character of medical service, but, in any case, there must be strong local medical support of policies. My proposal would be a medical society committee for every school system, recognized as an integral part of the schools, to determine medical policies.

We have reason to be very proud of the medical leadership in this State in most fields of public health. The medical profession, in fact, has been outstanding in giving guidance, support, and real promotion of all fields of public health, except in the schools. Even there, we have had many splendid contributions from individual physicians, but there has been altogether too much neglect from organized medicine. It is unfortunate that our school physicians have been organized as a separate group and not as part of their state and county medical societies. Certainly the state law requiring annual medical examinations and the State Education Department have interfered with the local determination and quality of medical service.

We cannot do much about determining the quality of medical advice rendered in a local school when the State Education Department sends out inspectors to the local community and exerts a powerful influence for more examinations than a doctor can do effectively in the time allotted. As you know, the slightest suggestion may become a strong influence when the state controls the subsidy to local communities. When the medical man in the schools is paid by local school authorities who operate under a system that is continually being directed from Albany, it takes a very determined and independent physician with a great deal of local support and influence with the local school authorities to withstand the demands from Albany. I do not mean to imply that all advice and influence from Albany is bad, but when the Albany office influences the local school to provide routine examinations that crowd out history-taking and

guidance to parents, then it is evident that we need better application of the principles of the American Medical Association and that we should emphasize "local determination of needs and local control of administration."

When local school authorities feel that it is not worth while to try to have children examined by the private physician and the state authorities do not do anything to encourage private physicians' examinations, it is time to have a little more local medical leadership. It is certainly unsound to let the public believe that the examination made in the school is an adequate substitute for the service that can be rendered by the private physician, who sees the child periodically in sickness and in health. I have heard state education officials stress the health educational value of the health examination, but I have never discovered that they appreciate what bad education it is for parents and children to get a false sense of security from inadequate examinations in school. This is a fundamental problem of maintaining the quality of medical service and the utilization of qualified medical and hospital facilities already established.

We may muddle along in peacetime with public health services in the schools that violate our medical principles, but today we have an opportunity to do something about this situation. Because of the war, the medical profession assumes a very different place in the community from the place it holds at other times. Medical advice in governmental matters is sought, and preventive medical services are recognized as essential and as the function of the medical profession. If the medical profession will speak out on these fundamental principles, clearly emphasizing sound health protection and care of school children at this time, I believe the opposition that we have experienced in the past will no longer be able to withstand the prestige of organized medicine today.

We have also an opportunity to use the statements from the educational administrators themselves to support the principles that we stand for. Thanks to Dr. Bauer, of the A.M.A., and some other public health leaders on a committee of the American Association of School Administrators, we have a report, "Health in the Schools," which can be quoted from effectively. For example, the report says:

"... the present trend is to de-emphasize the annual periodic school health examination. . . ." The writers point out that the annual repetition of the examinations consumes so much of the time of the medical, dental, nursing, and teaching staff, that no effort could be made to sort out even those cases needing immediate medical care. They point out the importance

of the medical history and say: "It is better to limit the examination and keep the history up to date." They emphasize the importance of the conference with the parent to explain the importance of medical care, or to convince the parent that it is worth while to seek medical treatment or a medical work-up. And above all, it should be remembered that the American Association of School Administrators makes clear that "the best school examination cannot take the place of the series of examinations done by the family doctor."

I have not discussed how a doctor can do his job in the schools and at the same time maintain the quality of medical advice and guidance.

You will note a reference in the program to new procedures that will meet the needs of children in school without conflicting with the fundamental principles of organized medicine. I shall leave that for Dr. Wheatley to discuss and to show that a sound service is possible even with a limited staff. The procedures are new for New York City and for most other places in the country, but I believe that they are practical and sound.

Finally, both Dr. Wheatley and I believe that the place of the physician in the school and the only practical job he can do is to act as an adviser, as a consultant, and as an educator, not as a mere examiner.

WAYS TO MORE EFFECTIVE SCHOOL HEALTH SERVICE

GEORGE M. WHEATLEY, M.D., New York City

NEW York City has had the opportunity to develop its own school health policies based on "local determination of needs and local control of administration." This freedom of local action has made possible from time to time experimental study of school health practices in New York City. The latest research, the Astoria School Health Study, was completed in 1941, and the report was published by the press of the Commonwealth Fund.* To develop some of the leads which Dr. Mitchell has given me with respect to procedures to meet the health needs of school children which harmonize with the basic principles of organized medicine, I shall draw upon my experience with the Astoria Study and the New York City Health Department from 1937-1941.

Today, when there are more pressing problems of military and industrial health which demand our thinking and our action, you may well ask why discuss school health service? My excuse, paradoxically, is the war. So long as the war lasts there will be an ever increasing encroachment—necessary, for the most part—on peacetime public health activities. Therefore, the efforts of those interested and engaged in school health work must be directed not toward obstructing this trend but toward adjusting to curtailment in public funds and personnel. The basic principle which governed the Astoria Study was to discover, if possible, the most efficient methods of conducting the school medical service and still keep within the bounds of good pediatric

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Read at the panel discussion on "School Health Services" at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942.

* *Solving School Health Problems*, by Dorothy B. Nyswander, Ph.D., Commonwealth Fund, 1942.

practice. We are facing, by necessity, in all phases of civilian life the challenge of effective, yet economical, operation. I should like to discuss three ways in which the school health service may meet this challenge: first, by increased efficiency in record-keeping; second, by conservation of the school physician's time; third, by better utilization of community medical resources. All three have been intensively explored by the Astoria Study. All three are incorporated in the policies of the New York City School Health Program. The first, dealing with school medical records, will have most appeal for school medical directors, but the second and third points have interest for every pediatrician.

Don't lose the child's medical record! This is so obvious that you may think it ridiculous to mention it. Nevertheless, one of the first studies made in Astoria showed that, in spite of the fact that all children were examined at the time they entered school and the information recorded on a card, by the time the child reached the fifth grade it was more than an even bet that he did not have a medical record. The main reason for losing the card was the frequent yearly moving from school to school. About 30 per cent of New York City school children move to another school each year. A year ago these comments would have had little application outside of this city. Today almost every community is experiencing a tremendous shift in population because of workers' families moving to new industrial locations.

The idea worked out to insure the transfer of the record was quite simple although the administration in such a large organization as the New York City school system was sometimes

rather complicated. Whenever a child now transfers from one school to another the parent is given the medical record along with the academic card to take to the new school. Now it is the exception for a record to be lost, for the child cannot be admitted to the new school without these records. Preserving the child's medical record through his school life is the first step in economical administration of school health service.

We found that the school nurse spends about one-fifth of all her time on records. We must make every effort to reduce this time. In the Astoria Study we experimented with the use of nonprofessional workers to do clerical chores, which released the nurse for professional activities in the school. This experience is being used to good advantage today to train volunteer aids.

Another time-saving measure was to print the medical records in two colors to distinguish the sexes. This considerably shortens the time taken to find a record. Metal tabs of assorted colors were introduced to assist the nurse to organize her follow-up work. The appropriate color placed at the top of the individual record designates immediately to the nurse what action she is to perform. And finally, considerable emphasis was placed upon teaching the staff of both doctors and nurses in the school system to put pertinent information on the record. If there is a health problem, answers to three questions must be on the medical record. *What* is the condition? *Where* is it to be taken care of? And *when* will it be taken care of? These are all rather simple administrative suggestions but if fully understood and incorporated into the school medical record system will not only save time but will also improve the quality of service rendered.

Ways to Save the Time of the School Physician

Even more important today than streamlining records is the conservation of the time of the school medical personnel which promises to become scarcer every day. We learned in Astoria that many activities of the school health program can adequately be performed by nonmedical personnel. The classroom teacher made semi-annual vision tests and measured the height and weight of each child. Audiometer tests were made by technicians. Plans were worked out so that the data accumulated both by the teacher and by the audiometer technicians could be routed through the school nurse and physician. This is an essential but sometimes neglected step in the procedure. It must be done to insure proper interpretation of tests to parents. In the school medical examination arrangements were made so that the children could be undressed and

ready for examination when they were presented to the physician. The physician was freed from having to write the record by having the nurse make the notes which he dictated as he performed the examination.

The reason why it is important to conserve the school physician's time by eliminating nonprofessional functions is to avoid speeding up the medical examination. When the load of examinations remains the same but staff is curtailed the tendency is to step up the tempo of the medical examination. To hurry the examination only tears down what has been slowly building up during the last few years—namely, the improvement in the character of the examination given in the schools. Preserve the examination but relieve the physician of doing what can be done just as effectively by others in the school.

The best economy in the use of the school physician, we believe, is to devise screening or case-finding procedures so that children most in need of the physician's judgment can be culled from the hundreds of well children in the school. This seems rather radical to some physicians, especially to school physicians. Nevertheless, it is a well-established method of public health administration and, in a sense, forms the basis for the management of cases in private practice. The physician is never in a position to supervise closely enough the health of every individual in his practice from day to day. He needs to rely, in the case of children, upon the observations of the mother, or, in adult practice, on the symptoms expressed by the patient. What we have tried to do in the Astoria program is to develop the interest and ability of teachers to make day-to-day observations of pupils for signs and symptoms that might suggest the need for medical attention. This information is utilized in the health service by having the nurse visit the classroom periodically for a review of the health condition of each pupil in the class. The classroom discussion between teacher and nurse includes the teacher's observations, the nurse's progress in securing treatment for certain pupils, her information about home conditions, as well as the nurse's evaluation of the teacher's observations. From this classroom conference, children are selected for the physician's attention.

In addition to this rather formal method of case-finding, teachers are encouraged to refer freely from day to day, when the nurse is in the school or at the time when the physician visits the school, any children who have urgent problems. This is the system which is now being used in New York City. In Astoria we found that 8 out of 10 children so selected by this classroom conference method, when examined by the school physician, were found to have a health

problem requiring further medical attention. These do not, as a rule, represent cases of medical neglect, either. They are children whom the teacher may have noted as frequently absent, or doing poorly in school, or exhibiting unusual behavior in the classroom, or she may think a child looks pale, thin, or overweight, or she may know that he has been absent because of sore throat, discharging ear, swollen glands, and so on.

Will Screening Detect Heart Conditions?

Sometimes the question is raised: How do you discover children with heart disease by this system? The best answer I can give is to refer to an analysis of the medical findings of the school physicians in a group of 241 children who had been selected by the Teacher-Nurse Conference method. Seventeen out of the 241, or 7 per cent, were diagnosed by the physician as having heart disease or possible heart disease. Among an unselected group of 426 children, these same physicians found that 1.8 per cent had organic or possible heart disease. This latter figure is comparable to the frequency of heart disease among New York City school children.

A corollary to this question of overlooked cases is the comment that school physicians are alarmists and often needlessly refer cases. We are all familiar with the justifiable complaint of the family or clinic physician who has had to pacify a distraught mother who says the school doctor told her that "Mary has a bad heart" or "Johnnie's tonsils must come out" when you know that Johnnie never had a sore throat, swollen glands, or any other conditions referable to the tonsils, and Mary has a nonorganic murmur which you've observed for years.

The New York City Health Department has done three things during the past four years: (1) it has had a staff education program to teach pediatrics to public health physicians and nurses; (2) mothers have been encouraged to attend the school medical examination so that today Dr. Leona Baumgartner, Director of the Bureau of Child Hygiene of the Health Department, reports that 89 per cent of the examinations done in the period from September, 1941, to January 31, 1942, were made with parents in attendance; (3) a personal history is obtained either from the mother or on a form sent to the child's home. This information, plus the observations of the teacher, aids the physician in his diagnosis.

Table 1 shows the frequency with which the school physician's judgment was confirmed. We think that these data are an indication of more careful selection of children by school nurse and physician. While a more thorough examination takes more time, nevertheless it pays because it usually results in a valid referral for treatment.

TABLE 1.—FREQUENCY OF AGREEMENT BY TREATMENT AGENCY WITH SCHOOL PHYSICIAN

Decision of Treatment Agency	Astoria Children		Health District Brownsville Children	
	Number	Percentage	Number	Percentage
Agreement	209	82%	183	78%
Disagreement	31	12%	34	15%
Undecided	16	6%	16	7%

Greater Participation of the Private Physician

Perhaps the most important contribution of the Astoria Study was the development of private physician participation in the School Health Program. Many school health services have excluded the private physician, some on the grounds that if he is encouraged to participate, the school physician will not have a job; others on the basis that his examination is not so carefully done as the school physician's. We started out on the assumption that most children had some medical attention prior to entering school. Therefore, why not encourage the family to use the physician to whom the child was already accustomed and who, moreover, knew far more about the child's health than we were likely to learn from the brief contact that we had with him in school? Furthermore, if treatment were needed, the child was already in the right hands and it would save us a lot of follow-up time. We believed, too, that if the private physician carried a substantial part of the examination load, the school physician would be released for advisory service to principals and teachers in the schools.

The Health Department has always favored the examination of children by their family physicians wherever possible, but in 1933, based on our experience in Astoria, a vigorous campaign was begun. In 1937 it had been demonstrated that a friendly, simply worded letter signed by the school principal and sent to the parents of each new entrant suggesting an examination by the family physician but *not mentioning that the school physician would do it if the family didn't attend to it in ten days* resulted in a 100 per cent increase in private physician examinations.

In addition to an improved statement on the value of the examination by the personal physician, it is now the policy throughout the city, when parents are registering their children for school, to station physician, nurses, and trained clerks in all the schools to interview parents and encourage the examination. Since the school year 1937-1938 when the percentage of entering children examined by private physicians was 8 per cent, the figure has increased to a magnitude of 42 per cent for the school year 1942. In 1938-1939, 15,600 of the examinations were made by

TABLE 2.—TREATMENT AGENCY ATTENDED BY SCHOOL CHILDREN

Agency	Astoria Children		Brownsville Children	
	Number	Per-centage	Number	Per-centage
Personal Physician	256	100%	232	100%
Clinic	204	80%	145	63%
Undetermined	45	17%	78	33%
	7	3%	9	4%

private physicians, for 1941-1942 the number had increased to 20,800.

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Thus the private physician is playing an ever increasing role in the school health program in New York City, and under present conditions he is likely to assume greater importance. This raises the question of his responsibility and interest in school health work. If the school earnestly educates children and their parents to seek the best medical attention by visiting their family physician, he in turn must play his part in this preventive medical effort. He must give the lie to those who say, "The family physician will not take the school examination seriously," or, "He gives no information to guide the school in its effort to develop an individualized health program," or, "He doesn't want to be bothered with the school nurse who tries to aid in follow-up of his patients who may have lapsed treatment."

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educational authorities in New York City cannot admit a child to public school unless he is vaccinated.

Thirty-four conditions requiring medical attention were reported for this group of 120 children. From the description given in the reports, in one-third of the cases it was impossible for the school physician or nurse to understand the nature of these conditions. For 7 of 31 children reported as needing medical attention, the school had no information to indicate that the private physician was assuming responsibility for treatment. A sampling of private physicians' opinion in the city revealed that nearly all physicians would welcome the school nurse's assistance in the follow-up of school children who were their patients. Yet two-thirds of the reports of those children whom the physician said needed medical attention gave the nurse no clue if and when the physician wished to see the child again.

School is obviously a very real influence in the child's growth and development, and physicians are now recognizing its importance in their care of children. If the physician studies this facet of the child's daily life, while he may discover influences which may contribute to or create a health problem, he may find also that the school can contribute to his program of therapy. For example, he may make recommendations concerning play activities or rest periods, additional nourishment for below-par children, seating in class for vision or hearing defects, or providing better understanding by teacher and principal of children with emotional problems. Some idea that the physician is missing such opportunities is gained from these same 120 reports. Of 13 children whose condition suggested recommendations to the school regarding special adjustment of play and physical education activities, such recommendations were made for only 3 children. In the case of 36 additional children, judging by the description of the child's condition in the report, some recommendation might have been made. But in only 9 of this group were any additional recommendations made to the school by the family physician.

These comments are made to indicate that a gap in understanding as well as communication exists between the school and the private physician. If we were to seek the answers to the questions that have been raised we should perhaps discover that the school has been remiss in not explaining to the physician what kind of information it needs in order to provide an individualized health program for the child—on the other hand, we might learn too that the physician has not taken the school health examination very seriously.

The Goal of School Health

The school's function is to educate the child and the family in good health practices. What better education is there than one which advises the full use of community medical resources? An important but incompletely utilized medical facility in the community is the private physician. We have demonstrated that it is possible to increase substantially the private physician's participation in the school health program. We have tried to suggest also that the family physician has a responsibility to perform the health examination in keeping with the best pediatric practice. This includes communicating an adequate report to the school so that the school in turn may understand any special needs of the child and work in cooperation with the family and the physician to secure for the child his best growth and development in mind and body.

This is both an ideal and a challenge—ideal-

istic because we are aiming pretty high to conceive of all physicians cooperating to provide this kind of school health service; challenging because in New York City with a substantial and increasing share of the school health work being done by private physicians the need is before us to develop medical examination standards and a better understanding of school health work among all physicians.

Summary

Three ways to achieve more effective school health service have been discussed. Two of these—modernizing records and saving the school physician's time—can be accomplished by the school medical administrator. The third calls for increased participation of the private physician in the school health program. The ultimate success of this must depend upon the leadership of organized medicine.

EDUCATION AND HEALTH

EVERETT COLGATE JESSUP, M.D., Roslyn, New York

LOOKING back over the years, one is impressed by the recentness of school health work and of the larger field of public health work of which it is a part. Modern public health work dates from the beginning of this century. Since 1904, with the organization of the National Tuberculosis and Public Health Association, have come all the agencies and endeavors that we now take almost as a matter of course—infant mortality campaigns, prenatal care of the expectant mother, venereal disease hygiene, mental hygiene, child hygiene, agencies for cancer and heart disease control, etc. The greatest impetus in this field came less than twenty years ago from the establishment of departments of public health in our medical schools, particularly those of Johns Hopkins and Harvard.

School health activities have followed a similar chronologic pattern, having been inaugurated in England in 1907 with the establishment of medical inspections of schools. In 1913, under the leadership of Dr. Herman Biggs, Commissioner of Health of the State of New York, laws relating to the medical inspection of schools and the maintenance of school health passed the New York State Legislature. Progress was interrupted by the first World War, and thus the ad-

vances that have taken place in this field date from 1919. Although much has been achieved, it would seem that progress would have been more rapid if school health had been placed under the Department of Health, where it naturally belonged, rather than under the Department of Education.

Thus, those of middle age have witnessed in their lifetime the development of a science which is still in its infancy. It is therefore reasonable to conclude that no procedure in public health or school health is so well founded that it may not be the subject of criticism and even be liable to change.

Furthermore, let us not forget that modern education is likewise of recent development and is similarly vulnerable to attack. The article on education in the *Encyclopaedia Britannica* is authority for the statement that "during the nineteenth century up to 1870 and even later, reading writing, and arithmetic and cooking and needle work for girls were considered to be the end-all and be-all of elementary education." Parenthetically, one recalls that some towering intellects developed from the simplicity of this early education. The "frills" of science and history and art and geography have been added since that date. Thus the prevailing curriculum is buttressed by no hoary tradition and is not inviolate; in fact, it has chiefly developed to its

Read at the panel discussion on "School Health Services" at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942.

TABLE 2.—TREATMENT AGENCY ATTENDED BY SCHOOL CHILDREN

Agency	Health District			
	Astoria Children	Per- centage	Brownsville Children	Per- centage
Personal	256	100%	232	100%
Physician	204	80%	145	63%
Clinic	45	17%	78	33%
Undetermined	7	3%	9	4%

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of new playgrounds, a tardy recognition of the greatest need of city children.

What can be done about it? What means and methods can be used to adjust these incompatible elements in the education of children? Suffice it to say that the method of achieving a more rational balance in the training of the mind and body will undoubtedly be by minor adjustments here and there, fought for by health, grudgingly yielded by formal education.

The first battleground in the fight must be that no man's land called detention. Formal education must cease intruding upon the time of physical activity. A detention period must be set aside as a part of the curriculum. Children not serving detention should have this extra period for physical activity. The teacher of arithmetic should no more think of poaching upon the period of physical activity than she would think of poaching upon the English hour. In fact, if any poaching has to be done, it would be far better to poach upon the time allotted to the course in which the child excels and thus give added time to the subject in which he is deficient. The teacher must be made to realize the vital necessity of physical activity in youth and must be sympathetic toward it. Noteworthy changes for the better in rowdiness and the gang spirit in our schools and colleges have been due to the directing of physical activity into the contests of the playing field, to the associated influence of the spirit of sportsmanship, and to the mental and moral qualities developed by proper training in competitive sport.

The second battleground, where the fight is easiest, is the primary grades. Formal schooling lasts a half-day here and allows plenty of time for adequate exercise after the last recitation, but the school avoids the obligation by sending the child home. This suggests the appalling waste in the use of our equipment, our beautiful grounds lying idle for a large part of the day. This situation has been met in some schools by the platoon or work-study-play plan—half of the children in the classroom, the other half on the playground. Besides making fuller use of the playing facilities, this scheme increases the amount of classroom space available.

School hygiene intrudes on the reading problem of the primary grades. Many authorities hold that letters and the finely coordinated movements of reading are prominent causes of nervous fatigue in the child. Dr. James Kerr, of London, who has written a book on school vision, states: "The importance of letters before the age of seven is exaggerated by teachers. It would be better if they were not permitted to be formally taught before this age."

The real fight starts in the junior grades, where formal education begins to bear down heavily and the need for physical activity is at its greatest. Physical activity must be provided, and in sufficient amount. How? Based solely on the time element, the figures of Hetherington mean little. An hour of football produces more physical fatigue than an hour of ordinary play. The most vigorous exercise known, which comes next to fighting for one's life in actual energy expense, is modern basketball. The character of physical activity is of great moment, and the time element must vary inversely with the degree of energy expended. It would seem, however, that the ideal system in maintaining body health is intermittent exercise, not cramming all in one short period or in a week end. This might mean at least two half-hour periods of moderately stimulating exercise during the so-called school hours and at least one and a half hours of strenuous exercise afterward. The aim is to produce healthy muscular fatigue. That is the nectar that youth thrives on—so muscularly tired at 8:30 P.M. that no one even thinks of the movies!

In reference to the now obsolete walk to school, would it not be wise to start school earlier and devote the first half hour to stimulating exercise? Does every girl know a folk dance for each year of her age? Does every primary child know four singing games? Do all the children know one game or sport for each year of their age? There is much that could be done in that first half-hour to change the whole spirit of the day. The edge would be cut from the prevailing early morning restlessness, for biologically the child is ready at dawn for muscular activity, not for rest in a chair deciphering print. The second half-hour period would be the present recess prolonged. There would be a fifteen- to thirty-minute rest period after lunch. A full hour and a half of strenuous exercise would close the day, with the dismissal time advanced to 4:45. Such a scheme would interfere very little with the curriculum; maybe it would improve scholastic standing.

It would seem that the ideal educational system of the future would in some way combine many of the elements of the modern summer camp. The latter began as an organization devoted solely to physical activity and moral training, with emphasis on the physical activity. The author attended one thirty years ago where the boys played games all day long. Now the best summer camps are offering training in painting, modeling, voice, music, dancing, carpentry, pottery, jewelry, rug-making, woodcraft, first aid, and natural science, even to the extent of using the microscope, training in unusual hobbies,

present form during the past thirty years. The impact of school health work on the great field of primary and secondary education is only beginning to be felt. Profound changes in the educational sphere are likely to follow. It is a trite saying, *mens sana in corpore sano*, but it is the end that school health work is aiming to achieve, and formal education must adjust itself to a new point of view.

The fact of the matter is that the modern, formal, educational process in youth creates an environment that is biologically abnormal in two respects. First, the method of acquiring knowledge from the printed page is biologically a strange procedure. For millions of years men learned through other means. The production of printed books began five hundred years ago, and it is only within the last hundred years, with the coming of mass production, that they have been available to more than a few. Education has seized upon this means to such an extent that the whole educational process revolves about a book. In fact, the production of a book is for a teacher one of the chief means of recognition in his profession, as well as being a source of income. An excellent textbook makes the labor of teaching less arduous, and thus a vicious circle is created. As a result, learning has become a sedentary and indoor occupation, the second biologically abnormal situation. In the long history of the race, the child played through the entire day or learned the elements of life and race preservation by actual experience with father or mother, ending the day physically tired. Now he spends long hours indoors, seated at a fairly uncomfortable desk, endeavoring to transpose printed words into mental images that mean something (for many, a very difficult process), and as a result ends the day with less than two hours of exercise outdoors, tired mentally and nervously, but not physically.

That this is a particularly severe trial in early life was the opinion of Plato at a time when the education of the select few was the only problem. He stated in his *Republic*, written in 364 B.C., "For the first ten years of life, education shall be predominantly physical. Each school is to have a gymnasium and playground. Play and sport are to be the entire curriculum, and in this first decade such health will be stored up as will make all medicine unnecessary."

Herbert Spencer, surveying the whole field of education, appraising the value of languages and mathematics, philosophy and art, and all the other subjects, endeavored to answer the question, "What kind of education is worth most?" He concluded that the most important subject of education is *health*.

We have forgotten some of these precepts.

The accumulation of facts from the printed page has become an obsession and education has become a forcing process. Let us remember that the greatest nation of the past, intellectually and artistically, devoted far more attention to athletics and the training of the body than modern education has devoted even in its most liberal moments. Complaints are made that colds run rampant, that children are pale, peaked, and irritable, eat badly, bite their fingernails, have frequent gastrointestinal attacks, round shoulders, crooked spines, flat feet, chronic sinusitis, etc. Under our present system it is indeed remarkable that so many are able to retain as much health as they have.

Modern living conditions are greatly increasing the problem. In the cities with inadequate playgrounds or even none at all, education has been conditioned by its environment. Children are sent to school, and the hours are long to keep them off the streets and out of mischief. Automobile transportation is making terrific inroads on physical exercise. The modern child, after a hasty breakfast, is bundled into a closed car, conveyed to school, and deposited behind a desk. Compare this with life a few years ago. Picture that mile or two-mile walk to school when all sorts of things had to be done—birds and animals observed, fences climbed, brief contests staged, stunts performed, six-foot mud puddles jumped, snow drifts conquered, winds buffeted, so that students arrived at school rosy-cheeked, bright-eyed, body stimulated, ready for the day's work. Now even mud puddles are gone.

You ask what can be done about it? If a school is fortunate enough to have playgrounds, how much should they be used? In fact, how much physical exercise is really necessary for a child? Hetherington has estimated that the minimum of physical exercise for the maintenance and development of physical health is as follows: at the age of 5 and 6, four hours daily of muscular activity; from 7 to 9, five hours; from 9 to 11, six hours; from 11 to 13, five hours; from 13 to 16, four hours; from 16 to 18, three hours; from 18 to 20, two hours. This presents a pretty problem for modern education. Fit this in with the modern curriculum if you can. Maybe there is a reason why one-third of the applicants for army service are turned away as physically unfit. Maybe there is a reason why so many children who have plenty of rest, balanced diets, and the best of pediatricians, continue to run low hemoglobin percentages! Maybe there is a reason why we flee to hormones and vitamins and vaccines and tonics. The trouble is really the way of living. Millions and millions of dollars have just been spent by the United States and the City of New York, creating many hundreds

in Syracuse. We invite the parents to be present at the time of the examination, and if they do not come, those whose children were found to have defects are invited to a parent conference with the school physician, who demonstrates the defect found and discusses with the parents ways and means of correcting both the defects and general health habits. Ten per cent of the parents do come to the school either for the examination or for a conference. The response of parents of kindergarten and lower grade children is much better than those of children in the higher grades where, as a matter of fact, the pupils themselves do not seem to want them present.

The work of the school physicians is considerably lightened by the audiometer testing by a technician, vision testing by the teachers and nurses, and the examinations made by the dental hygienists in the six lower grades. This again is in line with the recommendation of Dr. Wheatley that the doctors' time be saved as much as possible by having less skilled personnel make such examinations.

The pupils found to have defects are referred back to the family physician, or dentist, for treatment. There is an exception to this, however, in the case of indigent children who need dental care, inasmuch as some of these are taken care of in the school by our two staff dentists.

Apparently Dr. Jessup favors an increase in the physical activity program, but I doubt very much that such a program would bring about the desired results. It would seem from his remarks that he has in mind the pupils of the centralized rural schools who are picked up by busses at their homes and taken to the school buildings. Our children have to walk to school—some of them at least a mile—so they still get considerable exercise going to and from school. The findings of the Selective Service indicate that young men are being rejected for defects such as decayed teeth, poor vision, heart disease, nutrition, mental and nervous diseases, ear conditions, etc., and I feel that finding and correcting these defects is more important than adding to the physical activity program. Very few, if any, are rejected because of lack of muscular development.

As a matter of fact there is real danger in too much physical education. Studies by Greenleaf, of Olean, of the blood pressure of basketball players, and by Preston, of Oneida, of the urinalyses of football players, have shown abnormal findings. Dr. Preston found that many of the football players showed albumin, casts, and red blood cells in their samples, and Dr. Greenleaf found abnormally high blood pressures in the basketball group. Whether or not these findings indicate permanent injury is hard to say at the present time.

Exercise has its part in physical well-being, but I believe it should be done in the open air, outside of school hours, rather than by prolonging the pupil's stay inside the school room.

I appreciate the privilege of being able to take part in this discussion and feel that I have benefited considerably from it.

Milton I. Levine, *New York City*—The problem of the relative position of the school physician and the

private practitioner in the school health service is not a new one to the pediatrician of the private school.

The very nature of the private school makes this problem ever present, for the pupils are usually of a higher economic status and have their own private physicians.

This would seem to place the greater part of the burden on the child's own doctor, but conflicts can and do arise, since the school demands almost daily contact of the school physician with the children, as well as rather frequent contact with the parents.

Under such a routine it is not difficult to understand how a parent might decide to shift from his child's previous physician to the pediatrician who sees the child daily and whose relationship with the child will naturally be more casual and friendly.

Several years ago a questionnaire was sent to the members of the American Academy of Pediatrics asking whether they felt that medical supervision in the public schools was detrimental to their practice. A number of responses absolved the public schools of making any such inroads, but, on the other hand, stressed that the private schools were definitely an interference.

At the present time, the ratio of public school children to each public school physician in New York City (1 to 10,000) is such that little or no problem is present in the city as a whole.

However, the experience of the private schools presents something of a preview of difficulties that might arise if at some future date there were not only more public school physicians but more frequent contact between the student and the physician, and the parent and the physician.

There is no doubt that many steps detrimental to the welfare of the private physician have been made by the private schools, and, unfortunately, in many schools these conditions still exist.

The private schools, in an attempt to present a well-developed health program to the parents, often use the school physicians in practices which will inevitably hurt the private practitioner.

Certain of these schools charge a health fee of five or ten dollars a year, which adds to the funds supporting the health service of the schools, but the parents are informed that this fee covers a careful physical examination of their child by the school physician. Naturally the assumption is that this takes the place of the yearly examination by the child's own doctor.

In certain private schools the physical examination takes place in the presence of the parents and a discussion of the child's physical problems follows immediately afterward between the school physician and the parent.

Not that the examination in the presence of parents or the discussion is to be condemned, but it should be distinctly emphasized that this does not supersede or take the place of the examination by the child's physician.

A further practice to be censured—and one that is most detrimental to the private practitioner—is the habit of certain private schools and many public schools of sending letters to the parents, stating that

etc. Can you imagine a summer camp not starting the day with some exercise?

Similarly, formal education, starting from the opposite pole of solely mental training (the author forty years ago attended two large schools in the city of Brooklyn that had neither gymnasiums nor playgrounds), is planning more and more for the physical activity of its pupils. The two systems are approaching each other along the previously mentioned work-play-study pattern, the pattern of a balanced training of the mind and the body. What folly that for three brief months of summer one trained the body and for the rest of the year trained only the mind! What folly that an educational system should be so constituted that both teacher and pupil need a vacation of several months in summer, several weeks at Christmas, and several weeks at Easter in order to recuperate from an unconsciously recognized but never openly acknowledged abnormal scheme of living! What other activity of man needs or demands such respite?

At such a time as this the international implications of the subject must not be forgotten. While a Nazi Germany is glorying in its youth movement, rating physical fitness as the *sine qua non* of a virile state, our medical draft boards are rejecting American youth by the tens of thousands for underdeveloped or maldeveloped bodies, for "emotional instability" and "constitutional inferiority." It is estimated that of the 16,500,000 registrants in the first draft less than 60 per cent will be classed for general military service. Think of this next time a frill is to be added to education.

I have outlined a fundamental problem of school health. Who is going to fight for it? Whose responsibility is it? There is only one answer—the school physician. He must raise himself, by his boot-straps if necessary, out of the

mire of routine physical examinations, and, as Dr. Mitchell has said, become an adviser, a consultant, an educator in the field of health and education. The attitude of mind that figures a school salary as representing merely a sum for so many physical examinations at so much per examination has got to go. It will be helped on its way by handing over the physical examination to the family doctor where it rightfully belongs and where it can be better handled. Then the school physician will have time to devote to the really important details of his job—time, for instance, to strengthen the weakest link in our present system, the follow-up for the correction of defects; time for frequent consultation on fundamental matters of policy and on individual cases with the school principal, the teacher, the parent, and the family doctor; time for creative thinking in the field of school health; and time for fighting to put such thoughts into effect.

Under the present system only the exceptional man raises above the inertia of his job. With real delight I heard one of our school physicians in Nassau County describe his method of solving the problem of correction of physical defects. He passed regulations that if a remedial defect is not remedied or is not in the process of being remedied, the student cannot play on an athletic team or hold a position in a student organization, such as the glee club, the band, the dramatic society, the school paper, etc. He is planning further to threaten holding up the student's working papers and his diploma.

Yes, creative thinking and activity in the field of school health is the crying need—now more than ever. As pointed out in the beginning of this paper, school health work is a new field whose soil has just been turned. There is plenty of work yet to be done, and the man to do it is the school physician.

Discussion

Dr. William E. Ayling, *Syracuse, New York*—This discussion of school health services has been most interesting. Dr. Mitchell's suggestion that every school system should have a committee on school health in its county medical society, to which it could turn for consultation and advice, is a good one. Perhaps in further discussion of this subject I will be excused if I draw on my experiences in Syracuse, following the example of Dr. Wheatley, who has discussed the Astoria survey.

School medical inspection was started in Syracuse in 1906, before it became a state requirement in 1913. We urge examination of school children by private physicians and endeavor to bring this about by first notifying the parents at the beginning of the term that an examination will be necessary, and then, just before the scheduled examinations by the

school doctor, by sending another notice again urging examination by the private physician but stating that if this is not done within two weeks the school physician will proceed with the examination. We have been unable to have as high a percentage examined by the private doctors as Dr. Wheatley reports, and I should be interested to know just how he gets such good results.

Up to the present year periodic health examinations in specified grades were being done in Syracuse but, under stress from the State Education Department, we are now attempting to reach every child. The addition of two nurses to our staff and extra pay for the school physicians, who spend two hours each day in school work, have facilitated this attempt.

Dr. Wheatley has stressed the importance of personal contact with the parents, and we also do that

THE ABSORPTION OF CARBON DIOXIDE FROM ANESTHESIA APPARATUS

DOUGLASS H. BATTEN, M.D., Brooklyn

THE absorption of carbon dioxide from anesthesia apparatus is a feature of modern anesthesia which most anesthetists take for granted. Yet its development is of comparatively modern origin, and its widespread acceptance has but recently come about.

The Development of Absorption Machines

The anesthetist who utilizes the closed carbon dioxide absorption method is indebted to the early workers^{1,2} in the field of metabolism for the development of this procedure. It is upon the experiments of these workers that Jackson³ in 1915 based his report of anesthetizing small animals by placing them in an airtight chamber. He used a pump to circulate the atmosphere breathed by the animals. The necessary oxygen was supplied from a cylinder, and the carbon dioxide was absorbed by means of a strong aqueous solution of sodium and calcium hydrates. He used several of the common anesthetic agents in his experiments, and he was able to keep his animals anesthetized for as long as five and a half hours without ill effects. He made particular mention of the small quantity of anesthetic agent used in this closed system.

The economic and physiologic aspects of these animal experiments attracted Waters, who investigated this work of Jackson with the idea of utilizing it on man. After years of experimentation and investigation, Waters concluded in 1924 that "total rebreathing of nitrous oxide and other anesthetic drugs is practical by means of a carbon dioxide filter interposed between the face mask and the breathing bag."⁴

This same author pointed out that there are available for rebreathing two types of apparatus—viz., the circle filter and the to-and-fro system. In his investigations Waters was reluctant to use a motor, as Jackson did, to circulate the respired gases. He felt that this was unwise because of their highly inflammable nature. He early discarded the circle type of filter because of the resistance encountered by the valves necessary to provide the unidirectional flow of the gases. He has since championed the to-and-fro method of rebreathing in which the absorbing unit is placed between the face mask and the breathing bag and through which the respired gases must pass twice before again being inhaled. In many clinics

today this to-and-fro system is held to be the more physiologically desirable type of apparatus.

More recent investigations^{6,7} have emphasized the importance of the shape and size of the canister that contains the absorbent. The most desirable shape is the one that offers the least resistance and at the same time allows maximum contact with the absorbing material. It has been shown⁸ that the most efficient container is the one whose size is such that it will just accommodate the patient's tidal volume. Because of the marked variance in tidal volume between patients, it should be emphasized that it is wise, when using the to-and-fro system, to have various-sized canisters available.⁸

The History of Absorbing Agents

It was Black⁹ who first demonstrated that carbon dioxide is readily absorbed by alkaline hydroxides. Benedict and Tower¹⁰ were the first workers to make use of a mixture of sodium and calcium hydroxides to absorb carbon dioxide. Since these fundamental studies were made, several investigators^{11,12,13} have confirmed the value of the alkalies in this respect.

For some years a mixture of these alkaline compounds, known as soda lime, has been widely used in anesthesia. This material, granular in nature, is composed of 5 per cent sodium hydroxide, 65 per cent calcium hydroxide, and 30 per cent inert binder. The process of carbon dioxide absorption is one of neutralization of carbonic acid by the hydroxides of sodium and calcium. There are evolved, for each gram molecule of water formed, approximately 13,000 calories. This process of neutralization probably occurs on the surface of the granules. Frequent rest periods have been found necessary in the use of soda lime to permit its reactivation. Experience has shown that soda lime is not without its disadvantages. In the main, these disadvantages include the essential rest periods for reactivation, fragmentation of the granules with dust formation, and the inherent causticity of the material.

Theoretically, the hydroxide of any of the alkaline metals—potassium, sodium, or lithium—or of any of the alkaline earth metals—barium, strontium, calcium, or magnesium—might be used for carbon dioxide absorption. Recently a new compound has appeared. It consists of 20 per cent barium hydroxide and 80 per cent calcium hydroxide. Unlike soda lime, it requires no inert binder for hardness, for in its hydrate form

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 23, 1942.

Director of Anesthesia, Methodist Hospital, Brooklyn.

unless the examination or injections are given within a certain period of time, these services will be performed without charge by the school physician.

Undoubtedly a large part of the fault for permitting such a system to exist lies with the family physician for not insisting that such services given at the school should be limited only to those children whose economic status is so low that private medical care is practically impossible.

An ideal setup satisfactory to both the school and the family physician would include the following:

1. An annual physical examination of the child by the private physician. This should be demanded of every child, and those whose families are unable to afford a private physician should receive an examination at school.

2. The school physician should realize that he is working with the child's physician and should at no time supersede him. If at times a special examination of a student is requested by school authorities and is performed in the presence of the child's parents, the latter should be informed that this examination does not take the place of the examination by the child's own doctor. In discussing the condition of a child with his parents, the school physician

should under no circumstance disagree with the opinion of the child's own physician. Much more will be gained by contact with the private physician and discussion of the child with him. Experience has shown that parents often distort or misinterpret the directions given them by their physicians.

Suggestions as to the necessity for treatment of anemia, impetigo, acne, ringworm, pediculosis, etc., may be made to parents, but the actual treatment should be instituted and followed by the private practitioner.

3. Under no circumstance should a school physician be permitted to take as his own patient a child already under the supervision of a private physician.

4. The school physician's primary purposes are to supervise the general health program of the school, to aid in preventing contagion, to examine specific cases when the request comes from the school, and to serve as the connecting link between the school and the child's private physician.

In summarizing, it might be said that the school physician should work hand in hand with the private practitioner but should always act in a secondary role, never treating the children except with the definite consent of the private physician.

OBSTETRICS AND GYNECOLOGY EXAMINATIONS

The general oral and pathologic examinations (Part II) for all candidates will be conducted at Pittsburgh, Pennsylvania, by the entire Board of Obstetrics and Gynecology from Wednesday, May 19, through Tuesday, May 25, 1943. The Hotel Schenley in Pittsburgh will be the headquarters for the Board, and formal notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates. Hotel reservations may be made by writing direct to the hotel.

Candidates for re-examination in Part II must make written application to the Secretary's Office not later than April 15, 1943.

The Pittsburgh Obstetrical and Gynecological Society will hold a subscription dinner meeting at the Hotel Schenley on Saturday evening, May 22, 1943, at 7:00 p.m. Visitors, here for the examinations, are cordially invited to make arrangements to attend. Reservations may be made by writing to Dr. Joseph A. Hepp, Secretary of the Society, at

121 University Place, Pittsburgh. An interesting program is being provided.

The Office of the Surgeon General (U.S. Army) has issued instructions that men in Service, eligible for Board examinations, be encouraged to apply and that they may request orders to Detached Duty for the purpose of taking these examinations whenever possible.

Candidates in Military or Naval Service are requested to keep the Secretary's Office informed of any change in address.

Deferment without time penalty under a waiver of our published regulations applying to civilian candidates will be granted if a candidate in Service finds it impossible to proceed with the examinations of the Board. Applications are now being received for the 1944 examinations. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

PAUL TITUS, Secretary

UROLOGICAL AWARD AND MEETING CALLED OFF

The \$500 Research Prize annually offered by the American Urological Association will not be awarded this year.

The government has again discouraged the holding of medical conventions, except those primarily of military interest—and at these there is to be a

ban on social events. Under the circumstances, plans for the June meeting of the American Urological Association in St. Louis have been canceled.

MILEY B. WESSON,
Chairman, Committee on Research
American Urological Association

THE ABSORPTION OF CARBON DIOXIDE FROM ANESTHESIA APPARATUS

DOUGLASS H. BATTEN, M.D., Brooklyn

THE absorption of carbon dioxide from anesthesia apparatus is a feature of modern anesthesia which most anesthetists take for granted. Yet its development is of comparatively modern origin, and its widespread acceptance has but recently come about.

The Development of Absorption Machines

The anesthetist who utilizes the closed carbon dioxide absorption method is indebted to the early workers^{1,2} in the field of metabolism for the development of this procedure. It is upon the experiments of these workers that Jackson³ in 1915 based his report of anesthetizing small animals by placing them in an airtight chamber. He used a pump to circulate the atmosphere breathed by the animals. The necessary oxygen was supplied from a cylinder, and the carbon dioxide was absorbed by means of a strong aqueous solution of sodium and calcium hydrates. He used several of the common anesthetic agents in his experiments, and he was able to keep his animals anesthetized for as long as five and a half hours without ill effects. He made particular mention of the small quantity of anesthetic agent used in this closed system.

The economic and physiologic aspects of these animal experiments attracted Waters, who investigated this work of Jackson with the idea of utilizing it on man. After years of experimentation and investigation, Waters concluded in 1924 that "total rebreathing of nitrous oxide and other anesthetic drugs is practical by means of a carbon dioxide filter interposed between the face mask and the breathing bag."⁴

This same author pointed out that there are available for rebreathing two types of apparatus—viz., the circle filter and the to-and-fro system. In his investigations Waters was reluctant to use a motor, as Jackson did, to circulate the respired gases. He felt that this was unwise because of their highly inflammable nature. He early discarded the circle type of filter because of the resistance encountered by the valves necessary to provide the unidirectional flow of the gases. He has since championed the to-and-fro method of rebreathing in which the absorbing unit is placed between the face mask and the breathing bag and through which the respired gases must pass twice before again being inhaled. In many clinics

today this to-and-fro system is held to be the more physiologically desirable type of apparatus.

More recent investigations^{5,7} have emphasized the importance of the shape and size of the canister that contains the absorbent. The most desirable shape is the one that offers the least resistance and at the same time allows maximum contact with the absorbing material. It has been shown⁸ that the most efficient container is the one whose size is such that it will just accommodate the patient's tidal volume. Because of the marked variance in tidal volume between patients, it should be emphasized that it is wise, when using the to-and-fro system, to have various-sized canisters available.⁶

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For some years a mixture of these alkaline compounds, known as soda lime, has been widely used in anesthesia. This material, granular in nature, is composed of 5 per cent sodium hydroxide, 65 per cent calcium hydroxide, and 30 per cent inert binder. The process of carbon dioxide absorption is one of neutralization of carbonic acid by the hydroxides of sodium and calcium. There are evolved, for each gram molecule of water formed, approximately 13,000 calories. This process of neutralization probably occurs on the surface of the granules. Frequent rest periods have been found necessary in the use of soda lime to permit its reactivation. Experience has shown that soda lime is not without its disadvantages. In the main, these disadvantages include the essential rest periods for reactivation, fragmentation of the granules with dust formation, and the inherent causticity of the material.

Theoretically, the hydroxide of any of the alkaline metals—potassium, sodium, or lithium—or of any of the alkaline earth metals—barium, strontium, calcium, or magnesium—might be used for carbon dioxide absorption. Recently a new compound has appeared. It consists of 20 per cent barium hydroxide and 80 per cent calcium hydroxide. Unlike soda lime, it requires no inert binder for hardness, for in its hydrate form

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CARBON DIOXIDE CONCENTRATIONS — ABSORBENT BARALYME

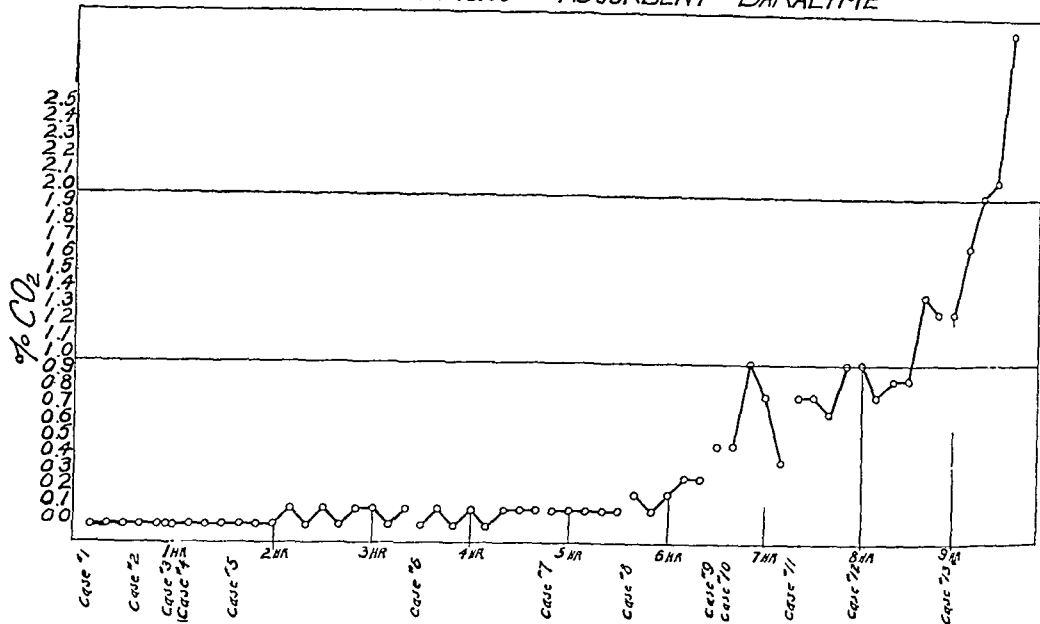


Fig. 1. Illustrating the efficiency of Baralyme throughout thirteen consecutive anesthetics. Each case separated from the next by varying periods of time. Clinical efficiency more than nine hours.

it is of such a nature as to permit easy molding. It is known as Baralyme* and is marketed in the form of round pellets, $\frac{3}{16}$ inch in diameter and $\frac{1}{8}$ inch in maximum thickness.

The theoretic possibilities of this compound have been examined through laboratory experiments,⁸ which show that this barium lime mixture has certain features that make it more desirable than the time-honored soda lime. The superiority of Baralyme* has likewise been borne out by clinical investigations.^{8,13} It should be pointed out that in an investigation of this sort it is manifestly impossible to duplicate in clinical practice the results obtained in the laboratory. Carbon dioxide output, tidal volume, respiratory rate, and minute respiratory exchange vary from moment to moment and do not lend themselves to ready control. Because of these variables, clinical studies can at best only approximate the finite data of the laboratory.

The Clinical Use of Baralyme

Clinical studies on this new barium lime mixture involved the use of adult patients with essentially normal cardiovascular and respiratory systems. Nitrous oxide and oxygen were used for induction and ethyl ether for maintenance of the anesthesia. The to-and-fro system was used throughout these investigations. The

canister size was 8 by 13 cm. and contained approximately 500 Gm. of the absorbent. The absorbing unit was not put in place until the hyperpnea necessary to the induction of anesthesia was no longer essential. These clinical studies have shown that this new Baralyme has a longer efficiency than the popular soda lime. This is probably explained by the fact that it contains 20 per cent of the highly active barium hydroxide. Soda lime, on the other hand, has a low content of activating material—only 5 per cent sodium hydroxide.

Analyses† of samples of gas taken from the breathing bag at various intervals during a series of consecutive anesthetics are shown in Fig. 1.

Fig. 1 is a composite chart showing the percentage of carbon dioxide in the breathing bag beginning in each case some ten minutes after the canister containing Baralyme had been placed in the system. The essential feature is that the efficiency of the carbon dioxide absorbent remains constant throughout the life of the charge. No matter how long the case, no rest period is required for reactivation. Exhaustion, when it occurs, is rapid and irreversible.

Fig. 2, similar in construction to Fig. 1, shows the accumulation of carbon dioxide at various intervals throughout the life of a charge of 4 to

†Carried out on single modified Hemple-type absorption pipette connected to a modified 100 cc. burette, calibrated to 30 cc. in 0.1-cc. divisions. Error is ± 0.1 per cent.

* Manufactured by Thomas A. Edison, Inc., Medical Gas Division, Bloomfield, New Jersey.

CARBON DIOXIDE CONCENTRATIONS — ABSORBENT SODA LIME

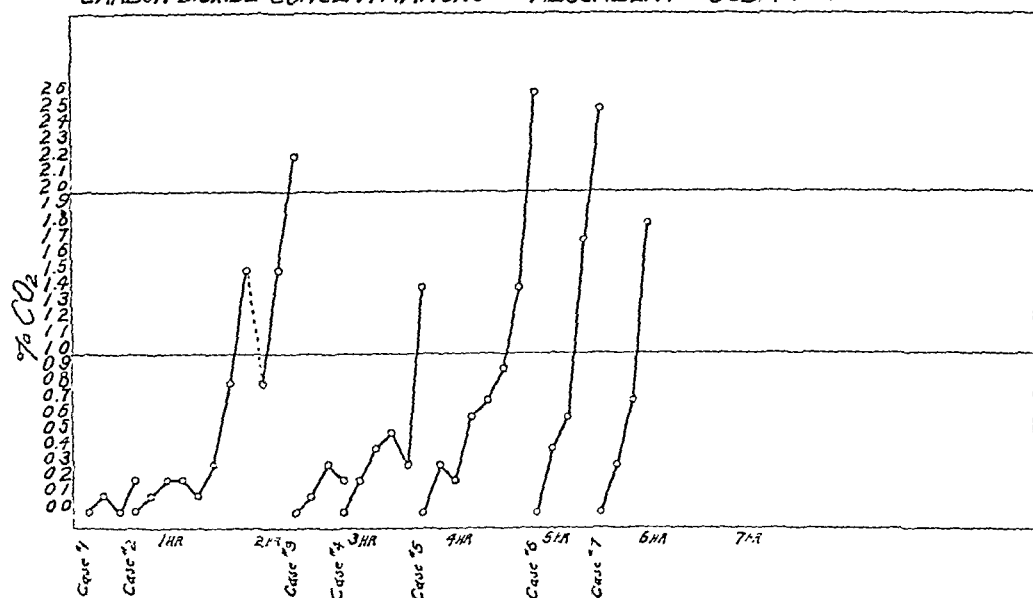


FIG. 2. The absorption of carbon dioxide by soda lime. Note rise in carbon dioxide concentrations after canister has been in use for some time. Efficiency slight after six hours of intermittent use.

TEMPERATURES IN CANISTER NEAREST MASK

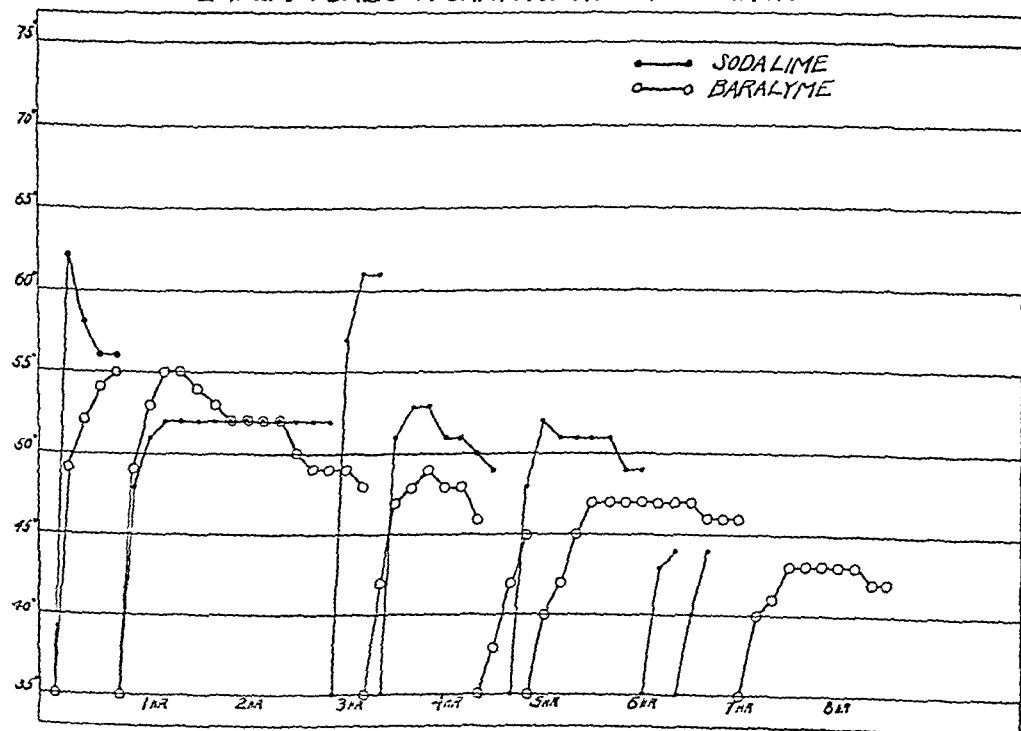


FIG. 3. Temperatures in Centigrade in thermometer nearest mask end of canister.

TEMPERATURES IN CENTER OF CANISTERS

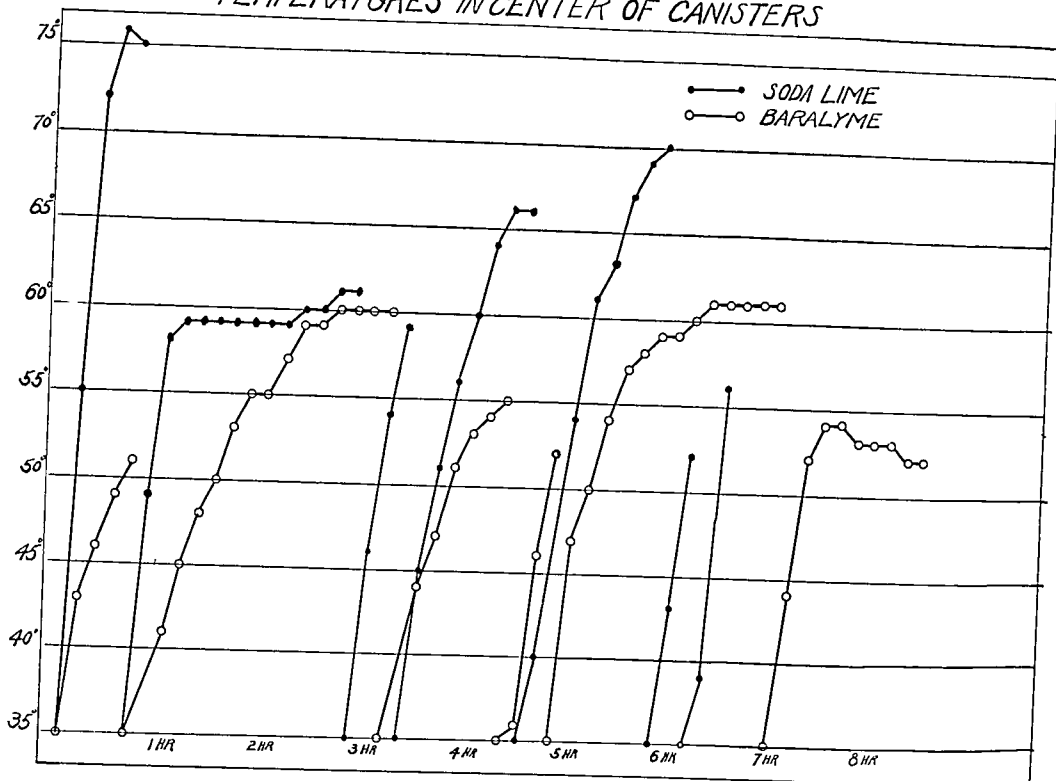


FIG. 4. Temperatures in center of canister are for same series of cases as that in Fig. 3.

8 mesh soda lime. It is to be noted that where the canister is in use for some period of time the absorptive efficiency is lessened, and carbon dioxide accumulates rapidly. After a period of rest, the canister may again be used. Its period of effectiveness, however, is this time briefer than if it were fresh.

The heat generated by the absorption of carbon dioxide has been a subject of interest. Studies with three thermometers inserted into the canister have been carried out. The tips of the thermometers were so placed that each was equidistant from the side of the canister. One was near the mask end, one in the center, and the third near the bag end.

Fig. 3 shows the recordings of the thermometer near the mask end of the canister. The two absorbents—soda lime and Baralyme—are used. It is to be noted that the length of the cases done with one agent does not correspond exactly with that done with the other, one of the insurmountable problems of clinical experimentation.

Because this thermometer was nearest the exhaled atmosphere, the absorbing activity in this area of the fresh charge was great. The temperatures are therefore highest at the beginning of

the use of the charge and diminish as the activity lessens. The temperature recordings with Baralyme are in general slightly lower than those with soda lime.

Fig. 4 shows the recordings of the middle thermometer in the same series of cases. It is of interest here to point out that the temperature of the soda lime mixture varies greatly from time to time, while that of the Baralyme follows a more definite pattern.

Fig. 5 demonstrates the temperatures developed in the thermometer nearest the breathing bag. As would be expected, the activity in this portion of the canister is least when the canister is first placed in use and greatest as the life of the charge nears its end. Hence, the temperature of the reacting substance is highest during the latter hours of its usefulness.

There is less dust formation with Baralyme than with soda lime. Since these pellets of Baralyme have smooth surfaces, there is little tendency to fragmentation. Even with the jarring that is incident to the use of the to-and-fro canister there is minimal dust formation.

Because of the low solubility of barium compounds, their causticity and toxic effects are

TEMPERATURES IN CANISTER NEAREST BAG END

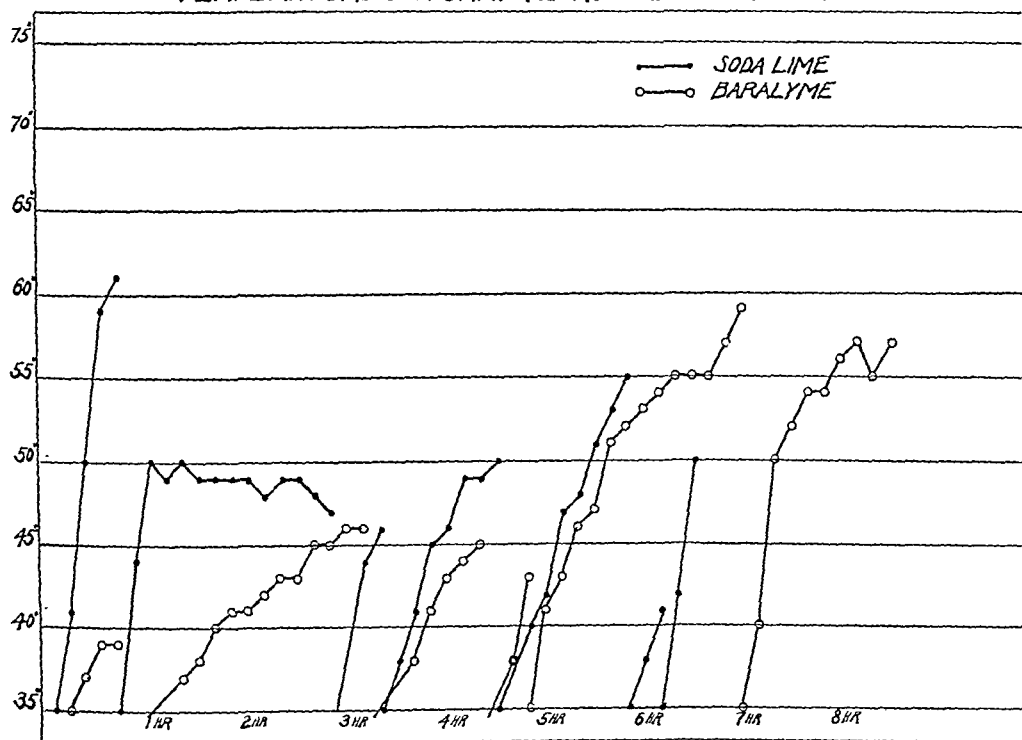


FIG. 5. Temperatures in Centigrade in thermometer nearest bag end in same cases as those shown in Fig. 3.

negligible. This is in contrast to the extreme solubility of sodium hydroxide and its necrotizing action on human tissues.

Summary

A survey of the literature indicates that the absorption of carbon dioxide in anesthesia apparatus is a refinement of comparatively recent origin.

Two types of apparatus are available—the circle and the to-and-fro.

Using the to-and-fro system, a comparison of mixtures of sodium and calcium hydroxides with barium and calcium hydroxides has been carried out.

From the standpoint of efficiency, temperature reaction, causticity, and fragmentation, the barium mixture has certain advantages over the soda lime compound, and its further clinical use is advocated.

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Discussion

Dr. Melville G. Kilborn, *West Orange, New Jersey*—I wish to thank Dr. Batten for the privilege of discussing his paper. A great amount of time and effort must have been expended in this clinical investigation and Dr. Batten is to be congratulated.

I am very pleased to see that he found the same advantages of Baralyme while working with the to-and-fro method as we did in working with the circle filter at our hospital.

It seems strange to me that so much work has been done in the past in an attempt to improve the mechanical features of absorption apparatus without a corresponding amount of investigation being done on the absorbent material. Anesthetists in general have realized the disadvantage of highly caustic material, of high temperatures generated by sodium

hydroxide and its necessary rest periods, but these disadvantages were accepted as a necessary evil. No advance in absorbent material was made until Mr. Gardener, chief chemist of the Medical Gas Division of Thomas Edison Industries, started to work on acid gas absorbents, believing that there was a better and safer material than caustic soda. Consequently, his development of compressed pellets of calcium and barium hydrates without the use of an inert binder is unique, and I feel that he is to be congratulated not only for giving us a new absorbent with many advantages but also for starting

the ball rolling for further research in acid gas absorbents. Acid gas absorbents are not limited in their use to anesthesia apparatus but have a very important place in basal metabolism machines, in high altitude oxygen supply apparatus, in submarine air purification, in oxygen therapy apparatus, and in chemical warfare. For this reason we should be continually on the lookout for better materials and improvements in methods. There is an old saying that you should not let the good damn the best.

Again I would like to thank Dr. Batten for this opportunity and say how much I enjoyed his paper.

Invite Enrollment for Emergency Medical Service

Dr. Edward M. Bernecker, commissioner of hospitals and Chief of the Emergency Medical Service of the City of New York, has issued the following memorandum concerning Greater New York's organization for emergency medical service:

"The response of the medical profession in New York City in volunteering to work with the Emergency Medical Service has been most gratifying. A canvass of physicians in each borough who had previously registered for this service is now being conducted. Those physicians who are still available, and have indicated their continued desire to be associated with this work, will shortly receive new cards and arm bands, identifying them as members of the Emergency Medical Service. Physicians so identified will function in the following manner:

"1. Those with definite hospital commitments, staff appointments, will of course report to their respective hospitals.

"2. Those without staff appointments shall care for persons injured in the immediate vicinity of their homes or offices should an incident occur in that area.

"3. They shall report as reserve groups to nearby hospitals who have set up Emergency Medical Field Units. These groups will be called by the Control Station for field service, either with the Hospital

Units, or at first aid posts and Casualty Stations.

"4. If a physician registered in the Emergency Medical Service is not in the immediate vicinity of his home, office, or the hospital to whose reserve group he is assigned, he should remain wherever he happens to be, to give local aid if needed, or until traffic is once more permitted to move; at which time he should report to his emergency assignment.

"We wish to invite all members of the medical profession, who are not at present assigned to hospitals or registered with us through their county societies, and who wish to enroll for service in the event of enemy action, to register either with their local county society, or directly with the office of the Chief of the Emergency Medical Service, Dr. E. M. Bernecker, commissioner of hospitals, 125 Worth Street, New York City.

"All that is required of the physician, is that he forward his name, home address and telephone number, office address, office hours and telephone number to either of the offices previously stated. He will then be required to sign the official oath of the Citizens Defense Corps, following which he will receive his identification card, arm band, and assignment."

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Clinicopathologic Conferences

DEPARTMENTS OF MEDICINE AND PATHOLOGY, NEW YORK POST-GRADUATE MEDICAL
SCHOOL AND HOSPITAL, COLUMBIA UNIVERSITY

Conducted by HERMAN O. MOSENTHAL, M.D., and MAURICE N. RICHTER, M.D.

Date: October 20, 1942

History

Case J-65954

DR. JOHN A. GRIMSHAW: This is the first admission of a 45-year-old man of Prussian descent, whose occupation has been that of masseur. His case history goes back to a short time before November, 1941. At that time, although he felt perfectly well, he began to have bloody urine not associated with pain, frequency, burning, fever, or any other symptom. In November, 1941, he was hospitalized with the complaint. There had been no weight loss, cough, or anorexia. Urine at this time was said to have been negative, and cystoscopy revealed nothing unusual. A urogram suggested papillomatosis of left kidney and pelvis, with a later one showing a filling defect that suggested the same thing. On November 15, 1941, a left nephrectomy was done. The report we have states that "papilloma of pelvis and ureter" was found, but it does not mention whether this was a gross or a microscopic diagnosis. Chest x-ray was reported as follows: "Throughout both lung fields, alongside the vascular tree, particularly in both perihilar regions, a number of soft miliary nodulations are noted, suggestive of a hematogenous type of tuberculosis."

After his discharge from the hospital, his wound healed well, but he began to lose weight rapidly and in four months lost 24 pounds. His appetite was poor; he felt weak and tired. About one month after discharge—i.e., about January, 1942—he began to have a bothersome hacking cough, nonproductive at first, but later accompanied by moderate amounts of yellowish sputum, although there were no known fever, night sweats, or hemoptysis. At the same time, he began to notice dyspnea even on mild exertion, and frequent epigastric discomfort and fullness, particularly after meals, with occasional vomiting. There were no hematemesis and no tarry or bloody stools. Since the operation he complained also of weakness and numbness of the right hand and arm.

Past history revealed absolutely no previous illness of any kind. Family history was also negative—no known tuberculosis, hypertension, diabetes, or other familial disease.

He was admitted to this hospital on March 28, 1942, with the above complaints.

Physical examination on admission revealed a husky, rather pale man. There was evidence of recent weight loss, and he appeared chronically ill.

Teeth in the upper jaw were all absent and the remainder in poor condition. The pharynx was moderately inflamed. There was no lymphadenopathy. The lower half of both lung fields was filled with many fine and coarse moist rales, but there was no change to percussion. Diaphragms were high on both sides. The heart was not remarkable, with no apparent enlargement and no murmurs. The blood pressure was 128/80 mm. of mercury. The liver was firm, slightly tender and nodular, and down to about 2 inches above the umbilicus. There was a well-healed scar on the left flank. Ascites was not demonstrable. No other masses or organs were felt. There was noticeable wasting of the flexors of the right forearm and thenar eminence and adductors of thumb, with diminished sensation to pinprick on the radial side of the forearm and of the index, the middle fingers, and the thumb. There were no other neurologic findings. Genitalia and rectal examinations were negative.

Laboratory Data.—Blood count: hemoglobin, 12.8 Gm.; red blood count, 4,900,000 per cubic mm.; white blood count, 10,350, differential—73 per cent polymorphonuclears, 16 per cent lymphocytes, 8 per cent monocytes, 2 per cent eosinophils, 1 per cent basophils. Urinalysis: several casual specimens of urine revealed no albumin, no casts or pus, but occasional red blood cells. Blood chemistry: urea nitrogen, 11.0 mg. per cent, nonprotein nitrogen, 27 mg. per cent, sugar, 85 mg. per cent, cholesterol, 180 mg. per cent, esters, 115 mg. per cent. Sedimentation rate: 96 mm. per hour. Blood Wassermann: negative. Spinal tap: normal manometrics, clear colorless fluid with negative Wassermann, protein 31.7 mg. per cent, no cells, negative culture, and normal colloidal gold.

On March 30, 1942, two days after admission, an x-ray examination showed "an extensive reticular and spotty, and in part miliary-like, infiltration throughout both lungs. These . . . are in the main central and most advanced in the lower lobe areas. . . . Conclusion: diffuse peribronchial and coarse miliary infiltration throughout both lungs."

On April 20, 1942, another chest x-ray showed "condition practically as previously reported. Conclusion: chronic, organized tuberculous type bronchopneumonic infiltration throughout both lungs."

An electrocardiogram taken on March 30 showed normal rhythm, "diphasic T₁ and T₂ with a U-shaped appearance very suggestive of recent digitalis," although the patient certainly had no digitalis in the previous two days and gave no history of having taken it before admission.

Clinical Course.—The course in the hospital was continually downhill, slowly at first, then more rapidly. The temperature was constantly about 100 F., with slight diurnal variation; it went above 100 F. on only two occasions. The pulse was within the range of 85 to 100. Appetite was poor, and the patient had a feeling of pressure after eating. One week after admission there was definite shifting dullness and fluid wave in the abdomen. A course of mercupurin was given, with poor results, and a week later a paracentesis yielded 5,000 cc. of cloudy grayish fluid. This had a specific gravity of 1.010, the protein was 0.97 per cent, a culture was negative, and no acid-fast bacilli were seen on smear. Guinea pig was inoculated.

Ten days later another paracentesis yielded 5,000 cc. of fluid with essentially the same characteristics. Sediment of the centrifuged specimen was fixed and blocked and sections showed only lymphocytes and macrophages; no tumor cells were seen. Numerous sputum examinations failed to demonstrate any acid-fast organisms. Progressive weakness developed rapidly, and one month after admission the patient expired.

Discussion

DR. CARL H. GREENE: This patient came to the Medical Service with the complaint of progressive weakness and ill health following a nephrectomy. When a patient does badly after a nephrectomy, one's first thought is of a hypernephroma with metastases. Because a hypernephroma invades the blood stream directly, metastases to the lung are most frequent. This patient, however, does not fit into that clinical picture. In the report from the other hospital, the lesion was first described as a papilloma of the renal pelvis. In a second paragraph of that report the term "papillary carcinoma" was used. A papilloma is a benign lesion. Metastasis from a papillary carcinoma of the kidney is possible but it does not occur with the marked frequency and degree seen in cases of hypernephroma.

Examination of the patient did not serve to establish the diagnosis. A few rales were noted in the lungs. The liver was enlarged, slightly

tender and the surface was somewhat irregular. A generalized carcinomatosis could not be established on the clinical findings on admission. The patient was markedly dyspneic, and cardiac decompensation was considered. However, he did not present the clinical picture of chronic passive congestion and heart failure. The pulse was regular and the blood pressure was not remarkable. The dyspnea was disproportionate to the number of rales heard in the chest. The liver was not pulsating.

An x-ray was taken and reported as showing a diffuse miliary tubercular infiltration. This diagnosis is a descriptive one and is not synonymous with a diffuse miliary tuberculosis. Nevertheless, an intensive search for acid-fast organisms was made without success. No other signs of tuberculosis were demonstrable.

My first impression, based largely on the history, was the same as that of Dr. Grimshaw.

While in the hospital, the patient developed ascites and had to be tapped. No characteristic tumor cells were found in the ascitic fluid. The specific gravity was fairly high with over 1 per cent protein. Only a slight diuretic response was obtained by the injection of mercupurin. This, too, speaks against chronic passive congestion and cardiac decompensation, for such patients give the best response to the mercurial diuretics.

My final diagnosis, therefore, was malignancy (papillary carcinoma) of the kidney with secondary involvement of the lungs, liver, and spleen, and possibly of the peritoneal cavity.

I did not consider that the x-ray picture of the lungs would exclude pulmonary metastasis. Three years ago I saw another patient who had had a chronic lymphatic leukemia for seventeen years. He developed an acute respiratory embarrassment (x-rays showed a diffuse infiltrative lesion throughout the lungs), and died primarily from oxygen want. Autopsy showed the lesion to be a carcinoma of the pancreas with a lymphatic spread throughout the pulmonary tree. There was enough similarity between the x-ray picture in this case and the one under discussion today to suggest that the latter, too, had a diffuse carcinomatous infiltration of the lungs.

Dr. Greene's Diagnosis

Papillary carcinoma of the kidney with metastases to the lungs, liver, spleen, and possibly the peritoneal cavity.

DR. MOSENTHAL: The x-ray reports at various intervals, considered in succession, as they have been in the history, are somewhat confusing. I believe we would have a clearer picture if we had a summary of this situation from Dr. Meyer.

DR. WILLIAM H. MEYER: Examination of the thorax shows an extensive, reticular, and spotty, and in part miliary-like, infiltration throughout both lungs. These structural changes are in the main central and most advanced in the lower lobe areas, though as above stated, the lesion is more or less throughout both lungs. Conclusion: diffuse, peribronchial and coarse miliary infiltration throughout both lungs.

In making a radiologic recheck, it might be said that the picture is such as could be characterized as organizing, reticular and coarse miliary-type metastatic malignancy. The word "miliary" or even "tubercular-type" should not be interpreted as indicating tuberculous character; this description is used purely as a term of gross pathologic interpretation.

DR. MOSENTHAL: The condition of the right forearm—namely, the weakness occurring after the operation on November 15, 1941, the atrophy in the muscle, and the diminished sensation to pin-pricks—presents a very interesting problem as to the causative diagnosis. Dr. Sherwood made an examination to cover this problem.

DR. WILLIAM D. SHERWOOD: In the presence of primary malignancy anywhere in the body, and later the development of symptoms in the nervous system, there is a great temptation to make a diagnosis of metastasis. The argument, *post hoc ergo propter hoc*, is probably the worst form of reasoning. It is very intriguing and presents an invitation which it is somewhat difficult to side-step. It can, however, lead us into devious paths and to completely erroneous conclusions. To be sure, the possibility of metastasis must be kept in mind, but it must be borne out by physical findings before we hang our hat on that hook.

In this case, the man's symptoms were confined to the hand and consisted of some sensory loss in the distribution of the radial nerve, together with some atrophy of the thenar eminence and great difficulty in approaching the thumb to the little finger. A secondary malignant infiltration of the nerve sheaths or blood vessels sometimes gives us a picture of peripheral neuritis with pain and motor disability, but in this case the biceps and triceps reflexes would then be involved. This was not so. Both of these reflexes were equally active in both upper extremities. Therefore, it would seem to me that we are compelled to place our pathology below the elbow. A peripheral neuritis would explain the findings. There is, too, the fact that this man was a masseur. His work would necessitate the constant daily use of the very muscles involved, and so the thought of pathology of occupational disease comes to mind.

Your chairman, Dr. Mosenthal, in order presumably to test our diagnostic acumen, has withheld, until after the discussion, the findings of the pathologist's postmortem, but I feel quite sure that they are negative so far as the brain or cord are concerned.

DR. GRIMSHAW: As a further causative factor, traumatic neuritis incurred at the time of transfusion or at the time of the operation might also be considered.

DR. MOSENTHAL: Dr. Greene said that the abdominal fluid had the characteristics of an exudate and was not a transudate. I should think from the findings that this was a transudate. The specific gravity of 1.010 and a protein content of 1 per cent would indicate this.

DR. GREENE: In my opinion there is no sharp distinction between transudates and exudates. Exudates have a higher specific gravity and a higher protein content than transudates, but that is all.

DR. MAURICE BRUGER: I agree with Dr. Mosenthal.

DR. MOSENTHAL: The character of the ascitic fluid, whether this is a transudate or an exudate, would seem to be of considerable significance here because if this is a transudate, then in all probability there is one of two conditions existing in this liver: either there are metastases or enlarged lymph nodes obstructing the portal vein, or there is a cirrhosis of the liver independent of or secondary to the malignancy. Another interesting point in this connection is that the vomiting preceded the ascites. Cirrhosis of the liver might have been responsible for this. These symptoms, coupled with the characteristics of the ascitic fluid, point to the presence of cirrhosis of the liver. This does not gainsay that there is not a malignancy as well.

Pathology

DR. MAURICE N. RICHTER: About 2,000 cc. of ascitic fluid were present. In the left lumbar region was a mass of fat, in place of the kidney which had been previously removed. This fat was surrounded and partially infiltrated by tumor tissue. Similar tumor tissue was seen around the right kidney, but did not infiltrate the organ itself.

Each lung was studded with small, white nodules, the smallest barely visible and the largest about 1 cm. in diameter. These were seen on the pleural surfaces and also throughout the lung tissues. On the cut surface the smaller nodules were often noted around the bronchi. The bronchial lymph nodes were enlarged and partly replaced by soft, grayish-white tissue, occasionally necrotic.

Nodules of soft, grayish-white tissue similar to that described in the lungs, were seen in many other situations. The lymph nodes in the pelvis, along the aorta, in the mediastinum and cervical regions, were all enlarged, and often had necrotic centers. Three small nodules of similar tissue were noted in the muscle of the right auricular appendage. On the peritoneal surfaces of the stomach and small intestine distended lymphatics were noted, containing soft, friable, grayish material. Similar distended lymphatics and nodules were found in the diaphragm, the serosa of the gallbladder, and in the mesentery.

The liver was enlarged (2,040 Gm.) and had a distinctly granular surface. Nodules of liver tissue surrounded by grayish, periportal fibrous tissue were seen throughout the cut surface. The spleen was slightly enlarged.

These gross findings indicate that we were dealing with a neoplasm, although the appearance of some of the smaller nodules in the lung strongly suggested miliary tubercles. A microscopic slide of the kidney tumor removed at another hospital was obtained for examination, and found to be a papillary carcinoma. The sections of various organs from the autopsy showed that the nodules and infiltrations described were secondary deposits of the same tumor. It was particularly interesting to observe the invasion and distention of lymphatic channels throughout the body. This was particularly noticeable in the lungs, the diaphragm, and the peritoneal surfaces. The wall of the thoracic duct itself was invaded by the tumor, although occlusion did not occur. In several of the distended lymphatics the papillary structure shown in the original tumor was reproduced. Involvement of small veins was also noted in

several organs. Invasion of the stomach and small intestines occurred in several places, apparently by way of the lymphatics from the peritoneum. Tumor cells reached the stroma of the mucosa, without causing ulceration.

In a few areas cells with very clear cytoplasm were noted among the tumor cells, but this feature was only occasionally seen and did not suggest a hypernephroid tumor.

The liver was of great interest, in that extensive cirrhotic change was associated with infiltration of the carcinoma in the periportal connective tissue, producing the picture that is often called "carcinomatous cirrhosis." Associated with this were the ascites and moderate splenic enlargement.

From the pathologic standpoint the case is fairly clear, as far as diagnosis is concerned.

The mode of spread in this case was mainly by way of the lymphatics, for the distension of lymphatic channels was one of the most conspicuous features. However, some of the secondary deposits may have arisen through metastases from the lung, the heart, or the liver. The spinal cord and brain were not examined; consequently, I have no answer as to the cause of the nerve lesions involving the right forearm.

Anatomic Diagnoses

Papillary carcinoma of kidney, left.

Obsolete operation: nephrectomy, left.

Secondary carcinoma of lungs, pleurae, heart, stomach, intestines, peritoneum, pancreas, liver, urinary bladder, lymph nodes (pelvic, lumbar, mesenteric, coeliac, mediastinal, cervical).

Cirrrosis of liver, due to secondary carcinoma.

Ascites.

Splenomegaly, due to portal hypertension.

SOIL DEPLETION AND FOOD VALUES

Dr. Ouida Davis Abbott, of the University of Florida, reported an interesting study based on the concept that the nutritional status of rural people gives more conclusive evidence of soil deficiencies than chemical analysis of either the plants or the soil. In the course of the study, the nutritional condition of 3,503 rural children was determined, the endemic nature of anemia noted and associated with soil and plant deficiencies. In sections where local cattle ranges were classed as deficient in "salt lick" of cattle, the children had lower hemoglobin values than in sections where the ranges were classed as healthful. Also in areas deficient in this respect, functional heart defects were much higher than in the nondeficient areas.

Roentgenograms of the wrists of selected children

of the same sex and age showed considerable variations in bone age and development. Children with skeletal imperfections came from sections where cattle also had poor bone formation and suffered from other nutritional defects. Young rats whose only food was milk from these poorly nourished cows soon showed symptoms of malnutrition and died unless a mineral supplement was added to the diet.

Another interesting fact reported by Doctor Abbott was that the iron content of pot herbs grown on different types of soil varied widely. When produced on soils classed as protected, greens contained from two to three times as much iron as when grown on deficient soils.—*Excerpt from "Nutrition Discussions at the A.Ph.A. Meeting," Health News, December 21, 1942*

Therapeutics

CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the May 1, issue and will concern "The Status of Therapy with Anticoagulants."

Treatment of Some Common Diseases of the Eye

DR. HARRY GOLD: Our conference this morning is on the treatment of disorders of the eye, more particularly those disorders which are commonly encountered in the general practice of medicine. The discussion will be opened by Dr. McLean.

DR. JOHN M. McLEAN: Some of the most annoying things we have to treat about the eye are some of the simplest and less serious diseases.

One of the very simple ones we might begin with is hordeolum or the common sty. An individual hordeolum or two is not at all a complex problem. It is nothing more or less than a small abscess of a marginal lid gland and should be treated as such in the early stage with hot moist applications. I believe that it does not make much difference whether you use hot compresses with salt solution, boric acid, magnesium sulfate, or hot tap water, so long as the moist heat is adequately applied at the right place. When the sty reaches the proper stage and begins to point, of course the obvious thing to do is to open it with the point of a small sharp knife and drain it. But there are patients who keep coming back with chronic recurrent sties, and it is often very difficult to clear these up for any but a short period of time.

The difficulty that we have in handling them is reflected in the almost endless list of therapeutic agents which have been proposed. I do not intend now to go into this long list in detail. The commonest application is an ointment of 1 or 2 per cent yellow oxide of mercury. When that is ineffective, it is customary to shift to some other mercurial ointment, usually about 2 per cent ammoniated mercury.

Some recent unpublished work indicates that there is little effect from the supposed active principle in these ointments and that bland ointment bases are almost as effective—that it is perhaps the massage in rubbing the ointment in and the cleaning rather than the actual mercurial salt which produces an effect. I am not sure which way we ought to lean in that respect.

Most of these chronic sties are caused by staphylococcal infections and for the correction of them various vaccines, many of them autogenous, have been prepared. Staphylococcus toxoid has been used, and desensitization with staphylococcus toxin seems to be about the most effective of all these procedures.

Recently a 5 per cent sulfathiazole ointment for use locally has been added to the list of therapeutic agents, and apparently it has been somewhat successful.

There is also one other factor. Many of these patients have definite refractive errors and seem to improve when they wear the proper glasses. A logical explanation of this coincidence is a little difficult.

In the same connection we have chronic blepharitis often accompanied by such sties. One of the most important factors in treating chronic blepharitis is mechanical cleansing of the lid margin, removing the crusts, and drying up the secretions which are present. This can be done adequately with cotton and warm water. Sometimes it is worth while to add a mild soap. Always remember that some soaps can produce considerable damage to the corneal epithelium if they are used carelessly.

It is important to remember that every once in a while, particularly in patients who come from surroundings with poor hygienic conditions, pediculi can be found in the eyelashes. They must be looked for carefully. We may overlook them and suspect something else unless they are kept in mind. When nits are present they should, of course, be removed with careful cleansing.

A 2 or a 3 per cent ammoniated mercury ointment seems to be of definite value for this purpose. Yellow oxide of mercury is used, and also zinc oxide ointment, 1 per cent or 2 per cent, as well as an ointment of bichloride of mercury in strengths varying from 1:5,000 to 1:12,000 or 1:15,000. How much value such an ointment may have is problematic.

If the marginal blepharitis is stubborn, it often can be helped a great deal after mechanical cleansing by painting the margin of the lids and the roots of the lashes with half-strength tincture of iodine. In those cases in which there are crusts and weeping secretions from the marginal glands, often 2 per cent tincture of brilliant green in 70 per cent alcohol helps to dry up the lid margins and shorten the course of the disease.

Sometimes following blepharitis or hordeolum, and sometimes independently, we find chalazia, which are retention cysts of the meibomian glands or the tarsal glands. If a mild astringent collyrium is used, with gentle massage and heat, many of these chalazia open up and discharge their contents slowly through the normal gland opening and disappear. Those that do not regress in that fashion must be treated by surgical incision through the conjunctiva and complete removal of the cyst wall, either by careful curettage or by destruction with caustic agents.

After diseases of the lids, we come to the large group of conjunctivitis. Acute catarrhal conjunctivitis is one of the most common problems, often spoken of as "pink eye."

The old standard treatment for acute conjunctivitis, of course, is argyrol, and I think the pharmacologists will speak later about the very weak antiseptic effect of argyrol and the other silver proteins in that group.

Argyrol is of mechanical benefit, however, because it does tend to coagulate and agglutinate the protein and mucoid shreds and the discharge. It will make it much easier to wash them out mechanically by irrigations with 2 per cent boric acid, normal saline, or some similar cleansing agent.

In the very acute phases there is usually more or less photophobia, which is helped by dark glasses, by ice compresses, and medications which contain epinephrine.

The whole story of photophobia is still somewhat obscure, but certainly we know that superficial vasodilatation is often associated with photophobia, many cases being conjunctivitis, and in those cases the photophobia is relieved by local vasoconstriction by epinephrine.

This simple preparation is useful:

R̄	Zinc sulfate	gr. i
	Boric acid	gr. x
	Epinephrine (1:1,000)	3 ss
	Distilled water	3 i

It relieves the symptoms and often ameliorates the condition. As you see, it is only a mildly antiseptic astringent preparation.

It is worth while in cases of conjunctivitis that do not yield promptly to simple treatment

to make bacterial studies and find out what organisms are involved. If pneumococcus is found, it is customary to use optochin (ethylhydrocupreine), but most cases of pneumococcus conjunctivitis get well just about as rapidly without it.

If the Koch-Weeks bacillus or the Morax-Axenfeld bacillus are found—I would like to remark here that there is no difference between the Koch-Weeks bacillus and the influenza bacillus—preparations containing zinc, either like the one just mentioned or the simpler one containing zinc sulfate, $\frac{1}{4}$ per cent in water, are of considerable use.

In stubborn cases we often paint the conjunctival surface of the lids with a weak silver nitrate, 1 or 2 per cent. This stimulates the circulation—a great deal and tends to remove the superficial epithelial cells, which, in many instances, contain most of the bacteria.

In chronic conjunctivitis it is important to remember that the source of the infection may reside in the lacrimal sac with a constant drainage into the conjunctival sac, in which case the lacrimal apparatus should be cleaned out with irrigations or dilated with probing if there is constriction.

Gonococcus conjunctivitis is a problem in itself. It is sometimes found in newborn babies and sometimes in adults. The treatment used to be very vigorous and still was somewhat unsatisfactory when the sulfonamides came into use. Before that time, very frequent irrigations day and night were necessary for weeks at a time, and even then many cases progressed to corneal ulceration and perforation with the loss of the eye. Now with adequate sulfonamide therapy the prognosis is excellent if the case is treated early. The only additional local treatment required is an occasional cleansing irrigation with normal saline or half-saturated boric acid solution.

The sulfonamides are given by mouth if possible, and by other means if necessary, and sometimes in newborn babies and in prematures the administration is a problem. I think Dr. Wheeler will take that up presently.

Inclusion blennorrhea, sometimes known in adults as swimming-pool conjunctivitis, is a virus disease of the conjunctiva which is self-limited but which takes a very long chronic course, lasting for months. In newborn babies it is a virus infection which produces so much purulent discharge that it is often clinically mistaken for gonorrheal ophthalmia. Until the advent of the sulfonamides, this condition also was treated with frequent irrigations. The course was very long, although no permanent

damage resulted. Now a very short course with sulfonamide therapy—sulfanilamide, sulfathiazole, or sulfadiazine—will clear it up completely.

It is interesting that along with trachoma, another virus disease, we have two virus infections of the eye which are treated best by sulfonamide therapy, although I believe that in general the sulfonamides are not particularly effective against viruses.

Vernal catarrh is essentially an allergic conjunctivitis. It is not serious, but it can be very annoying. The local symptoms are usually temporarily relieved by instillation of 1:1,000 epinephrine in the conjunctival sac. Sometimes a more permanent result is obtained with 3 per cent sodium bicarbonate. It must be remembered that this solution should not be given at the same time as epinephrine.

Mild 1 per cent solutions of acetic acid have also been used. In the very intractable forms with extensive swelling, the so-called pavement block involvement of the conjunctiva, simple mild radiation with the soft beta rays from radon is very effective, but this can be a dangerous therapy around the eye and must be handled by persons who are well acquainted with its use and its dangers.

Removal of foreign bodies from the eye is a problem that faces every physician and many others. If a foreign body is on the conjunctiva of the globe or of the eyelid, I think it is always advisable to remove it with soft cotton applicators without local anesthesia, if possible. However, when a foreign body is on the cornea, it is usually difficult to remove it unless a local anesthetic is used.

There is a large list of local anesthetics that can be used with safety: $\frac{1}{2}$ per cent pontocaine, 2 per cent metycaine, 1 per cent butyn sulfate, 1 per cent holocaine, and, of course, cocaine, although it is preferable to avoid cocaine because it has a slight macerating effect on the corneal epithelium. After the removal of the foreign body it is wise to irrigate the eye with some mild antiseptic solution in order to help prevent secondary infection and corneal ulceration at the site.

Always remember after using a local anesthetic in the eye that the corneal sensitivity will be absent for several hours afterwards, and it is not safe to let the patient go outdoors and walk around in the wind, exposing his eye to countless other foreign bodies which may scratch and irritate the globe without discomfort until the anesthesia wears off. Therefore, if he has to go out, put some simple ointment in his eye and protect it with an eye pad for several hours until the sensitivity has returned.

From time to time the general physician, the general surgeon, and the neurosurgeon are faced with exposure keratitis and neuroparalytic keratitis, either from damage to the fifth nerve, from mechanical proptosis of the eye, or from facial nerve palsy which prevents adequate closure of the lids. The immediate treatment of this condition is simple and consists primarily of protection. The old-fashioned Buller shield arrangement made with cellophane is comfortable to the patient, easy to apply, and is not liable to leak around the edges. In advanced cases it may be necessary to use surgical procedures on the lid margins in order to secure adequate protection.

Chemical burns of the cornea are acute emergencies which require immediate treatment by whatever physician is first at hand, particularly burns with strong acids and strong alkalis. Of these two types of burns, those from strong alkalis are much more serious because strong acids do not penetrate the cornea readily. Strong alkalis do penetrate easily into the eye, producing much worse permanent corneal scarring and sometimes loss of the eye itself.

It is not worth while to take time to find out whether it was an acid or a base, or to look for a piece of litmus paper. The thing to do is to wash the chemical solution out of the eye adequately and promptly, and if the nearest thing is a hose or water faucet, put the patient under it and turn the water on him. Force his lids open and wash out the conjunctiva and cornea completely. After that you can stop and worry about whether it was sodium hydroxide or sulfuric acid, and then is the time, if at all, to use mild neutralization with weak acetic acid or weak sodium bicarbonate.

As soon as possible after this treatment, stain the cornea with slightly alkaline fluorescein or some other adequate stain which will demonstrate any loss of corneal epithelium, and if there is any damage to the epithelium, the eye must be lubricated with mineral oil or any bland ointment, and must be protected with an eye pad or other similar device. This is the time to get the patient into the hands of the ophthalmologist because the final results of some of these alkaline burns are very serious, for although they often look much milder for the first day than acid burns, the end result may be much worse.

It is also worth mentioning that in burns with lime, the calcium salts penetrate the cornea and precipitate in an insoluble form, causing permanent corneal damage. Immediate instillation, after irrigation, of a solution of from 5 to 10 per cent neutral ammonium tartrate will help to keep the lime soluble, so that it can be mechanically washed out.

There are a few other emergencies that the general physician runs into. Sometimes you see a sudden complete occlusion of the central retinal artery. If that occlusion is complete, any treatment which is used must be immediate because speed is very important. Without nutrition the ganglion cells in the retina die very rapidly.

The obvious treatments and the standard ones are vasodilators, the inhalation of amyl nitrite or doses of erythrol tetranitrate, or nitroglycerine. The choline drugs have been used recently by local injection behind the eye. It was at first supposed that that would produce considerable vasodilatation, and now there is some fairly clear evidence that the choline drugs so used are not particularly effective on the retinal circulation.

If the equipment and someone who can handle it are available, one of the best mechanical treatments is immediate decompression of the eye by paracentesis of the anterior chamber, a very simple surgical procedure which lowers the intraocular tension abruptly and markedly, and which, followed by massage of the globe, often relaxes the spasm or dilates the central vessel enough for an embolus to pass on into a minor branch where it is much less harmful.

Occlusion of the central retinal vein is a less urgent condition and one which until quite recently had been considered practically hopeless. It is followed in many cases by severe hemorrhagic glaucoma, which results in enucleation. In recent months some astounding reports have come out in the literature of the cure of central retinal venous occlusion with the prolonged intravenous heparin treatment. There are some dangers in this form of treatment, but in such a serious condition we are justified in taking fairly radical measures to avoid eventual blindness.

Just a word about the involvement of the optic nerve: Optic neuritis or retrobulbar neuritis is a fairly common cause of sudden blindness. It may be due to syphilis, and when it is, it must be treated very rigorously with antisyphilitic therapy. I do not believe there is any satisfactory evidence to frighten us away from the rigorous use of the arsenicals. I think the mild treatment with the heavier metals and with mercury unctions is probably so much time wasted.

It is a time-honored procedure to have the posterior accessory nasal sinuses opened for retrobulbar neuritis, whether there is any evidence of sinus disease or not, and frequently these patients do show improvement shortly thereafter, which is always attributed to the sinus surgery. When they are followed over a long period of time, it turns out in about 90 per cent of the cases that the real disease is a demyeliniz-

ing process, usually multiple sclerosis, and sometimes other forms, such as neuromyelitis optica which have spontaneous remissions and which may clear up a little more rapidly because of the local vasodilatation produced near the optic nerves by the sinus surgery. However, I do not believe that radical surgery is often indicated in these patients.

Toxic amblyopia, which produces a very similar picture, is usually caused by the overuse of tobacco and alcohol. The obvious treatment is complete withdrawal of these poisons, but we also now know that the adequate use of vitamin B complex is distinctly worth while, and it has been shown by Carroll that it is possible with large doses of yeast to keep these patients on their alcohol and on their tobacco and still cause improvement. However, I think the proper treatment is complete withdrawal of the toxic agents, plus vitamin B in fairly large doses. Probably the effective part is the thiamine element, but it is just as easy to give the yeast tablets as such.

A final word about optic atrophy: One of the big problems of optic atrophy is in late syphilis, usually tabes, and there the routine antisyphilitic treatment should be continued, but tryparsamide should be avoided. We know now from the recent work of Earl Moore and his associates that the best prognosis goes with a combination of routine antisyphilitic treatment and malarial therapy. We cannot hope to recover much of the vision which is lost in an optic atrophy, but we can hope to arrest the process with this combination.

I will wind up with a few words on general advice that the family physician is often called upon to give about eye conditions that are beyond the scope of his treatment.

One is glaucoma. I think the best way to make a simple analogy of the glaucoma problem is to compare it with diabetes. Glaucoma is a disease which is never cured but which can be controlled. The medical treatment is comparable to dietary control in diabetes and the surgical treatment which may become necessary at any stage of the disease is more or less analogous to insulin therapy in diabetes. The patients have to be carried along a similar regimen, with constant observation and control.

Another such problem is cataract. Many physicians today, who have heard little about cataract since their days in medical school, are telling their patients things which are no longer true. They are advising them, for instance, that it is necessary to wait until a cataract is completely mature before operation is performed. By modern surgical procedures that advice is not only obsolete but not good because

the ideal cataract to remove by modern operative technic is one that is not quite mature. An operation can be performed at almost any stage of development of the cataract. Therefore, the time to operate is whenever the patient's vision has reached the stage which incapacitates him in his own visual requirements. That trend in modern surgery I think almost eliminates the use of dionin, which was given to patients with immature cataracts for years on end as a local irritant and a local vasodilator on the theory that it therefore would improve the ocular circulation and so slow up the development of the cataract.

DR. GOLD: The meeting is now open for questions. Dr. McLean has touched upon a large number of drugs, antiseptics, astringents, and local anesthetics, autonomic drugs used in the eye, and a variety of others for specific effects.

Dr. Wheeler, will you say something about the sulfonamides?

DR. C. H. WHEELER: I want to say something on the question of dosage in infants and small children. The dose that pediatricians commonly use is a total daily dose of 0.2 Gm. per kilo, divided either in four or six doses, given at regular intervals throughout the day.

This dose can be given in any of several ways. If it is difficult to introduce the drug into the child with the feedings or with water, it can be given by lavage or it can be given in a clysis subcutaneously. In small infants and children, I think probably the subcutaneous administration is more practicable than the intravenous although it sometimes can be given intravenously.

The total daily dose of 0.2 Gm. per kilo, you will note, would be a very large dose for an adult—about twice the ordinary adult dose.

DR. GOLD: I think Dr. McLean said we did not get very far with the treatment of the gonorrheal infections until the sulfonamide compounds made their appearance. Is that not so?

DR. McLEAN: We lost many more eyes from gonorrheal ophthalmia before the sulfonamides came in.

DR. GOLD: That, I assume, has to do particularly with the treatment of gonorrheal ophthalmia but not so much with prevention. We did get along pretty well with the prevention of gonorrheal ophthalmia, did we not?

DR. McLEAN: We did, and we still do. I did not mention anything about the use of silver nitrate for prophylaxis. I think it is important to use the silver nitrate for prophylaxis as required by law in many, but not in all, states, rather than the mild silver protein which some

people are inclined to use and which is much less effective prophylactically.

DR. GOLD: What per cent silver nitrate?

DR. McLEAN: One or two per cent.

DR. GOLD: Dr. Cattell, would you say something about the stronger and milder forms of the colloidal silvers?

DR. McKEEN CATTELL: There is a point of interest in relation to the preparations which are used.

In the first place the so-called mild silver protein actually contains more silver than does the strong. The effectiveness of the organic silver salts depends upon the degree of ionization and that is why the strength fails to parallel the silver content.

Then it is important that the solutions be fresh. They all deteriorate fairly rapidly. The mild solutions become stronger because of a greater ionization of the silver salt, whereas the strong preparations become weaker on standing because in them the ionization is decreased.

DR. OSCAR BODANSKY: Would the use of irrigations containing sulfonamide drugs in association with oral therapy have an advantage over oral therapy alone?

DR. McLEAN: That treatment is used, but so far as I know there is no conclusive evidence that irrigations with the sulfonamide solutions help the picture very much.

DR. GOLD: How about 5 or 10 per cent ointments of sulfonamides?

DR. McLEAN: They are very difficult to use where there is so much purulent secretion.

INTERN: Dr. Gold, do you think the use of silver acetate in prophylaxis would be preferable to the use of silver nitrate?

DR. GOLD: We might pass that on to Dr. McLean, who may have had some direct experience.

DR. McLEAN: Yes, I have seen silver acetate used in a series of newborn babies for prophylaxis, and I have seen gonorrheal ophthalmia develop in spite of it, although most people who have tried it have the impression that it is practically as good and somewhat less irritant.

DR. WHEELER: How long is it safe to use silver preparations in the eye?

DR. McLEAN: That depends a great deal on the solution which is used and the local conditions, such as, how much lacrimation there is that will wash the silver out. I do not think you can set any arbitrary time limit, but as a general principle it is always unwise to use silver protein, or silver nitrate, or other forms of silver over any protracted period of time.

DR. GOLD: I was wondering why cocaine has become less popular as a local anesthetic in eye

There are a few other emergencies that the general physician runs into. Sometimes you see a sudden complete occlusion of the central retinal artery. If that occlusion is complete, any treatment which is used must be immediate because speed is very important. Without nutrition the ganglion cells in the retina die very rapidly.

The obvious treatments and the standard ones are vasodilators, the inhalation of amyl nitrite or doses of erythrol tetranitrate, or nitroglycerine. The choline drugs have been used recently by local injection behind the eye. It was at first supposed that that would produce considerable vasodilatation, and now there is some fairly clear evidence that the choline drugs so used are not particularly effective on the retinal circulation.

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It is a time-honored procedure to have the posterior accessory nasal sinuses opened for retrobulbar neuritis, whether there is any evidence of sinus disease or not, and frequently these patients do show improvement shortly thereafter, which is always attributed to the sinus surgery. When they are followed over a long period of time, it turns out in about 90 per cent of the cases that the real disease is a demyeliniza-

ing process, usually multiple sclerosis, and sometimes other forms, such as neuromyelitis optica which have spontaneous remissions and which may clear up a little more rapidly because of the local vasodilatation produced near the optic nerves by the sinus surgery. However, I do not believe that radical surgery is often indicated in these patients.

Toxic amblyopia, which produces a very similar picture, is usually caused by the overuse of tobacco and alcohol. The obvious treatment is complete withdrawal of these poisons, but we also now know that the adequate use of vitamin B complex is distinctly worth while, and it has been shown by Carroll that it is possible with large doses of yeast to keep these patients on their alcohol and on their tobacco and still cause improvement. However, I think the proper treatment is complete withdrawal of the toxic agents, plus vitamin B in fairly large doses. Probably the effective part is the thiamine element, but it is just as easy to give the yeast tablets as such.

A final word about optic atrophy: One of the big problems of optic atrophy is in late syphilis, usually tabes, and there the routine antisyphilitic treatment could be continued, but tryparsamide should be avoided. We know now from the recent work of Earl Moore and his associates that the best prognosis goes with a combination of routine antisyphilitic treatment and malarial therapy. We cannot hope to recover much of the vision which is lost in an optic atrophy, but we can hope to arrest the process with this combination.

I will wind up with a few words on general advice that the family physician is often called upon to give about eye conditions that are beyond the scope of his treatment.

One is glaucoma. I think the best way to make a simple analogy of the glaucoma problem is to compare it with diabetes. Glaucoma is a disease which is never cured but which can be controlled. The medical treatment is comparable to dietary control in diabetes and the surgical treatment which may become necessary at any stage of the disease is more or less analogous to insulin therapy in diabetes. The patients have to be carried along a similar regimen, with constant observation and control.

Another such problem is cataract. Many physicians today, who have heard little about cataract since their days in medical school, are telling their patients things which are no longer true. They are advising them, for instance, that it is necessary to wait until a cataract is completely mature before operation is performed. By modern surgical procedures that advice is not only obsolete but not good because

cycloplegia without mydriasis? Would that solve the problem?

DR. McLEAN: That would solve the problem, but we have no such drug.

DR. GOLD: I have here a paper which appeared in the *Journal of the American Medical Association* in which cycloplegics are discussed. It contains the phrase, "Since most of the members of this group are also mydriatics." Are there any cycloplegics which are not mydriatics? If there were, that would solve your problem.

DR. McLEAN: I do not know of any adequate cycloplegics which are not mydriatic.

DR. GOLD: I do not know of any either.

DR. WHEELER: There is a problem in the wards of this hospital: If you have an elderly patient whose pupils are too small to allow adequate visualization of the fundus, and if the patient has no history of anything to suggest glaucoma, and if the intraocular pressure on crude palpation of the eyeball is not increased, is it safe routinely to dilate the pupils of that patient in order to see the fundi?

DR. McLEAN: It is perfectly safe in almost all those patients to dilate the pupils with a drug of the epinephrine group, such as 1 per cent suprenen or epinephrine bitartrate. It must be remembered that ordinary 1:1,000 epinephrine will not dilate the pupil. You can also use 3 to 5 per cent ephedrine sulfate, or in elderly white patients in whom there is no suspicion of glaucoma a 5 per cent euphthalmine. All these drugs should be followed by a miotic as soon as the examination is finished. You will find that in darkly pigmented Negro patients the stronger adrenalin preparations and 1 per cent homatropine will dilate the pupil adequately.

DR. WHEELER: In other words, we are taking a risk in using homatropine routinely to dilate the pupils in elderly individuals. It would be preferable to use one of the adrenalin preparations.

DR. GOLD: Or euphthalmine?

DR. McLEAN: I think euphthalmine is probably the best all-around drug for that purpose. In elderly people it should be followed by a drop of pilocarpine.

DR. GOLD: Did you say that euphthalmine does not produce cycloplegia?

DR. McLEAN: It does produce a very slight cycloplegia. It is not commonly noticed in individuals who have a great deal of residual accommodation. In elderly people it may be completely knocked out by euphthalmine.

DR. CATTELL: The accepted term for that drug is now eucatropine.

DR. GOLD: Euphthalmine is a trade brand of eucatropine.

DR. DuBois: What should the average physician carry in his bag?

DR. McLEAN: I think for the average physician in this community 5 per cent euphthalmine and either 1 or 2 per cent pilocarpine or a $\frac{1}{4}$ per cent of physostigmine will be satisfactory.

DR. GOLD: Would you use pilocarpine as the nitrate?

DR. McLEAN: As either the nitrate or the hydrochloride. Eucatropine will not suffice, however, if a doctor has to see many Negro patients, because the iris is much stiffer and more pigmented in the Negro than in the white. Here it is necessary to use a 1 per cent homatropine or a stronger drug of the epinephrine series.

DR. CATTELL: Do you use those drugs in combination?

DR. McLEAN: It is not necessary for preparing a patient for fundus examination. We use them in combination frequently in breaking synechia in iritis, and such things.

DR. GOLD: Do you use optochin in the treatment of pneumococcus ophthalmia? Optochin, or ethyl hydrocupreine, has been deleted from the *Pharmacopeia*.

DR. McLEAN: Good!

DR. GOLD: You think it should have been deleted?

DR. McLEAN: Yes.

Summary

DR. GOLD: It is clear from the discussion today that the general practitioner has a good deal of responsibility in treating disorders of the eye.

A fairly formidable list of conditions comes within his purview: the common sty; chronic blepharitis; pediculosis of the lids; retention cysts (chalazia); conjunctivitis (influenza, pneumococcus, gonococcus); inclusion blenorrhea (a virus disease); trachoma; vernal catarrh (an allergic conjunctivitis); foreign bodies on the conjunctiva or cornea; neuroparalytic keratitis; chemical burns with alkalis, acids, and lime; acute occlusion of the central retinal artery and vein; optic neuritis or retrobulbar neuritis; toxic amblyopia; optic atrophy; glaucoma; and cataract. Many of these obviously require the attention of the specialist. It is pointed out, however, that the general practitioner may treat several of them from beginning to end; in others he applies only the initial emergency treatment; and in still others he carries out protracted treatment under the guidance of the ophthalmologist.

Among the agents that should be at the command of the general practitioner are appropriate acids and alkalis for the neutralization of chemical

work. You say that it tends to produce maceration of the corneal structure. Is cocaine supposed to be unduly irritant by itself, or is it because it produces local anesthesia of longer duration, or are there other reasons?

DR. McLEAN: I think you will find if you use cocaine and, in a parallel series of eyes, pontocaine, for example, that there will be definitely demonstrable slight damage to the corneal epithelium in the eyes in which cocaine has been used and not in the eyes in which comparable anesthesia has been obtained with another drug.

I did not mean to suggest that cocaine is unpopular. It is still probably the most popular topical anesthetic in use for the eye. Another objection to its routine use is that it also dilates the pupil, which under many circumstances is undesirable, and many other anesthetics do not.

DR. GOLD: I wonder whether it may not have something to do with the way stock solutions are prepared. Cocaine hydrochloride makes an almost neutral very faintly acid solution, but in the endeavor to produce various stock solutions these have been prepared by various manufacturers with a pH of 3.5. I wonder if the low pH of these solutions is not responsible for the local irritant action, in part at least.

DR. EUGENE F. DuBOIS: May we have the names of several preferred local anesthetics and their synonyms?

DR. McLEAN: Pontocaine $\frac{1}{2}$ to 1 per cent; butyn 1 to 4 per cent; metycaine 2 to 4 per cent; holocaine (phenacaine) 1 per cent; cocaine 1 to 5 per cent. I would choose them in the above order.

DR. WHEELER: I would like to ask Dr. McLean whether there are any general principles about refraction, which is one of the commonest forms of therapeutics, that the general practitioner should know. Also, in that connection, I should like to ask whether the average optometrist, who does refraction, is competent to do so?

DR. McLEAN: In the first place, as for the general principles of refraction, it is a mistake to believe that because a patient has 20/20, or 20/15 vision he necessarily does not have a refractive error, for many cases of hyperopia and some patients with astigmatism have normal or nearly normal vision without correction, but are under a constant strain which will produce local ocular redness, puffiness of the lids, generalized tiredness, and headaches. This is also true of certain muscle imbalances, even where the refractive error may be negligible.

For the proper evaluation of refractive error in people under the presbyopic age, which begins

in the forties, it is important to use an adequate cycloplegic for refraction, which means usually atropine in children and homatropine in older people. Without this it is impossible to uncover much of the latent hyperopia which is one of the causes of symptoms.

On this score the optometrist is never entirely competent to refract because he is not allowed by law to use these drugs, nor is it safe to allow him to use these drugs because they have their dangers, particularly in the possible production of an acute glaucoma, and less often in the occasional production of atropine poisoning when they are used improperly.

The term "ophthalmologist" and the term "oculist" are practically synonymous.

An optometrist is a man who usually has had a high school education and has sometimes been to college and has acquired the title of optometrist in studying anywhere from a four-year course in optometry to a course of a few months. In some states these men are examined by optometric boards and licensed. In some states they practice almost at will.

I think even more important than their inability to refract other than elderly people adequately is the harm which they do by passing themselves off as eye physicians, selling patients glasses, and then telling them that their eyes are all right with the glasses. They overlook many cases of chronic glaucoma. They overlook many cases in which the fundus gives the first clue to serious systemic disease, and they send the patients away with a false sense of security.

Many of these patients, because of their visit to the optometrist, do not reach medical attention until it is almost too late.

While we are on the subject of terms, I might add that an optician is the ophthalmologist's counterpart of the pharmacist. He does not refract. He does not prescribe. He fills prescriptions for glasses.

DR. CATTELL: What precautions do you use in avoiding the dangers of increased ocular pressure?

DR. McLEAN: You should know by your preliminary examination of the eye when that is liable to happen and so use other methods in refraction.

DR. CATTELL: Will you tell us what those are?

DR. McLEAN: The best we can do is that sometimes we can produce with mild solutions of homatropine a very temporary cycloplegia, and immediately control the mydriasis with physostigmine, pilocarpine, mechoyl, etc., before any harm is done.

DR. GOLD: Is it your problem to produce

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., Chairman (428 Greenwood Place, Syracuse); George Baehr, M.D.; and Charles D. Post, M.D.

Program on Plasma and Whole Blood Transfusion

(Group of Special Lecturers Now Available)

PLANS have been completed to present to the medical profession the very latest information concerning blood plasma therapy and whole blood transfusion. This program is sponsored by the Medical Society of the State of New York, the Office of Civilian Defense, the Health Preparedness Commission of the State War Council, and the State Department of Health. The instruction will be presented by a group of especially interested and prepared physicians. The physicians available for lectures and demonstrations at meetings of county medical societies and hospitals staffs attended a conference on Friday, February 26, in the State Office Building, Albany, New York. Leading authorities on plasma therapy and whole blood transfusion addressed the group and there were round-table discussions.

These lectures may be arranged as special single sessions or in connection with formal courses or for a special or regular meeting of county medical societies. It is anticipated that this program will be much in demand. County medical societies have been supplied with the names of the speakers. Some requests have already been received.

Expenses of the speakers are paid by the Medical Society of the State of New York and the New York State Department of Health.

For information regarding a blood plasma and blood transfusion program address communications to:

O. W. H. MITCHELL, M.D., *Chairman*
Council Committee on Public Health and
Education
428 Greenwood Place, Syracuse, New York

Lecture on Plasma Therapy

THROUGH the combined efforts of the New York State Department of Health and the Medical Society of the State of New York, a single lecture on "Plasma Therapy" has been arranged for the Cortland County Society. The lecture,

which will be delivered at 8:30 P.M. March 19 at the Cortland County Hospital in Cortland, will be given by Frederick N. Marty, M.D., instructor in clinical medicine, Syracuse University College of Medicine, Syracuse, New York.

Dr. Reznikoff Speaks in Syracuse

AT a joint meeting of the Onondaga County Medical Society and the Syracuse Academy of Medicine a postgraduate lecture was heard on the subject of "The Diagnosis and Treatment of Anemia."

The meeting was held on March 2 at the University Club in Syracuse. Dr. Paul Reznikoff, associate professor of clinical medicine at Cornell University Medical College in New York City, was the speaker.

COLLEGE OF PHYSICIANS CANCELS SESSION

The Board of Regents of the American College of Physicians has announced the cancellation of their 1943 Annual Session, which was scheduled to be held in Philadelphia, April 13-16, 1943. This action was taken after thoughtful consideration of all factors involved, including an intimation from the Secretary of War and the Office of Transportation that larger national medical groups should not plan meetings at the time set; a growing difficulty in getting speakers and clinicians of top rank to maintain the usual standards of the program;

prospect of greatly reduced attendance because civilian doctors are faced with too great a burden of teaching and practice already; a decreasing active membership, due to approximately 25 per cent of all doctors being called to active military service. President James E. Paullin announced, however, that all other activities of the College would be pursued with even greater zeal and that the College would especially promote regional meetings over the country and organized postgraduate seminars in the military hospitals for doctors in the armed forces.

burns, astringents to reduce congestion, antiseptics, pupillary constrictors and dilators, vasoconstrictors and vasodilators, and local anesthetics. The following drugs were considered in relation to the eye conditions for which they are used: an ointment of 1 or 2 per cent yellow oxide of mercury; an ointment of 2 per cent of ammoniated mercury; a 5 per cent ointment of sulfathiazole; a 1 or 2 per cent ointment of zinc oxide; an ointment of 1:5,000 and 1:15,000 of bichloride of mercury; half-strength tincture of iodine; a 2 per cent tincture of brilliant green in 70 per cent alcohol; a solution of mild silver proteinate; 1 or 2 per cent solution of silver nitrate; a 2 per cent solution of boric acid; physiologic salt solution; a solution containing 1 grain zinc sulfate, 10 grains of boric acid, $\frac{1}{2}$ dram of 1:1,000 epinephrine solution to the ounce of distilled water; one of the sulfonamides for oral administration; a 1:1,000 solution of epinephrine; a 5 per cent solution of ephedrine sulfate; a 5 per cent solution of eucatropine; a 1 per cent solution of homatropine; a 2 per cent solution of pilocarpine; a $\frac{1}{2}$ to 1 per cent solution of pontocaine; a 3 per cent solution of sodium bicarbonate; a 1 per cent solution of acetic acid; a 5 to 10 per cent solution of neutral ammonium tartrate; mineral oil; amyl nitrite pearls or nitroglycerine tablets; ampules of arsenicals for the treatment of luetic optic neuritis; thiamine chloride tablets or brewers' yeast.

The conditions in which the foregoing agents

are put to use and the manner of their application are outlined in the discussion. It is to be noted that the dilatation of the pupil for fundal examinations, which is a very common practice, carries with it the danger of glaucoma in elderly patients, and that it is wiser in these cases to use the eucatropine solution instead of atropine. It ordinarily dilates the pupils but exerts relatively little effect on the ciliary body. In suspicious cases it is pointed out that the mydriatic should be allowed to act no longer than is necessary, and that its effects should be counteracted by a few drops of pilocarpine solution. Optochin enjoyed a period of popularity in the treatment of pneumococcus ophthalmia, but further experience indicates that it is probably of little use. Silver nitrate solution appears to be preferable to the silver proteinate solutions for the prevention of gonorrheal ophthalmia. The most important treatment for this condition after it is developed is the systemic administration of the sulfonamides. The treatment of luetic optic neuritis by means of bismuth and mercury is discouraged, and the more vigorous treatment with the arsenicals is advised. Attention is called to the fact that if a local anesthetic is placed in the eye for the removal of a foreign body or for any other condition, pontocaine is preferable to cocaine because it is less injurious to the cornea, and the eye should be protected, with a shield if necessary, until the sensitivity of the conjunctiva and cornea is re-established.

THE NATIONAL QUININE POOL

This week [February 6] to every druggist in the United States went from the War Production Board an appeal for quinine, supplemented with statements by Ross T. McIntire, Surgeon General of the Navy, Donald M. Nelson of the War Production Board, and Jesse H. Jones, Secretary of Commerce. The Army and Navy need every grain of quinine that can be secured. "Even though atabrine and other synthetic antimalarials are being used in tremendous quantities," says the statement, "quinine is vitally needed for our soldiers abroad because this drug has a faster action, brings the malaria under control more quickly, and thus shortens the length of time the soldier is incapacitated. Quinine is also necessary for use in cases which cannot tolerate atabrine and other synthetic drugs." The needs of our civilian population for antimalarial drugs will be cared for by the development of totaquine, which is a mixture of cinchona alkaloid prepared from the low-grade barks in South America. Totaquine, while excellent for domestic use, is not as stable as is quinine and therefore not as suitable for shipment into areas of varying climatic conditions. To the pharmacists of the country the appeal has been made

that they send all supplies of quinine, alkaloids, salts, and other cinchona derivatives, whether in open or in closed packages, to the National Quinine Board, which is in the headquarters of the American Pharmaceutical Association, 2215 Constitution Avenue Northwest, Washington, D.C. These materials, when collected, will be processed and thus made available to our armed forces. Each druggist who makes a contribution will be privileged to display in the window of his store a card indicating that he has contributed to the National Quinine Board and thus has rendered an important service to the armed forces. At the same time as this arrangement was being put into effect in this country, an announcement came from Great Britain that drastic restrictions have been placed on quinine, making it illegal to prescribe, dispense, or supply quinine except in the treatment of malaria or in the case of guanidine in the treatment of cardiac arrhythmia.

So important is the control of malaria to the health of our troops in many of the combat zones that the supply or lack of quinine might well be the determining factor in the winning of the war.—J.A.M.A.

his authorized representative. A circular giving full instructions for the use of the product shall accompany each final container, and copies of all circulars of information and directions including methods of dilution and of administration shall be filed with the State Commissioner of Health. Each package shall be clearly labeled with the dosage, unit value in standard units, and the expiration date.

Regulation 4: Institutions to keep records of transfusions. Complete and accurate records of transfusions of human blood, human plasma, human serum, or their derivatives shall be kept by the institution in which the transfusion is performed. The director or person in charge shall be responsible for the proper maintenance of these records. Such records shall be open to inspection by the State Commissioner of Health or his authorized representative and shall include the information specified in Regulations 5, 6, or 7 of this chapter, whichever shall apply.

Regulation 5: Records to be kept when unstored human whole blood is used for transfusion. When human whole blood is not stored and is used for transfusion, the records kept by the institution in which the transfusion is performed shall include:

- The date of the transfusion and quantity of material given.
- The name of the physician or surgeon making the transfusion.
- The name and address of the recipient.
- The condition of the recipient during and after transfusion.
- The name and address of the donor or donors.
- Certification from a physician registered under the laws of New York State showing that a physical examination of the donor or donors has been made within thirty days immediately preceding the blood donation and that such donor or donors is or are in his judgment free from communicable disease, including malaria and acute upper respiratory infection, and that the blood of the donor or donors has a hemoglobin content of at least 11 Gm. per 100 ml. of blood.
- The results of serologic tests of the donor's blood for evidence of syphilis.
- The results of tests to determine the blood group to which both the recipient and the donor belong according to the Landsteiner classification and of cross-matching tests to indicate that the blood of the donor and of the recipient are compatible.

Regulation 6: Records to be kept when human blood or nonpooled human plasma is stored. When human whole blood or human nonpooled plasma is stored for future use, the records of the institution in which the

blood is drawn and prepared for storage shall include:

- All items included in subdivisions (e) to (g) inclusive of Regulation 5 of this chapter.
- The date on which the blood was drawn.
- The specimen or lot number or other identification of the product.
- The blood group to which the donor belongs according to the Landsteiner classification.

The container shall bear a label on which shall be entered the name and address of the producing laboratory or hospital, the date on which the blood was drawn, the results of serological tests for evidence of syphilis, the specimen or lot number or other identification of the product and the blood group, according to the Landsteiner classification, to which the blood belongs.

Regulation 7: Records to be kept when stored human whole blood is used for transfusion. When human whole blood is stored and is used for transfusion, the records kept by the institution in which the transfusion is performed shall include:

- All items included in subdivisions (a) to (e) inclusive of Regulation 5 of this chapter.
- The name and address of the producing laboratory or hospital.
- The specimen or lot number or other identification of the product.
- The length of time that the blood was stored before it was used for transfusion.
- The results of tests to determine the blood group of the recipient, according to the Landsteiner classification, and of cross-matching tests to indicate that the blood of the donor and of the recipient are compatible.

Regulation 8: Records to be kept when human blood plasma, human serum, or their derivatives are used for transfusion. When human blood plasma, human serum, or their derivatives are used for transfusion, the records kept by the institution in which the transfusion is performed shall include:

- All items included in subdivisions (a) to (e) inclusive of Regulation 5 of this chapter.
- The kind of product used.
- The name and address of the producing laboratory or hospital.
- The specimen or lot number or other identification of the product.
- The expiration date of the product.

Regulation 9: When to take effect. Every regulation in this chapter, unless otherwise specifically stated, shall take effect on the first day of March 1943.

County News

Albany County

Dr. Milton Helpert, assistant medical examiner for New York City, addressed a meeting of the county society on February 24 on the topic "Medico-legal Investigation in New York City—the Responsibilities of the Medical Examiner's Office to the Medical and Legal Professions and Law Enforcement Agencies."

. . .

David Craig Adie

By the death of David Craig Adie on February 23, 1943—for the last ten years head of the Department of Social Welfare, State of New York—the people of the state have lost a practical, energetic and cooperative idealist and the profession of medicine a sympathetic, forward-looking coworker whom they owe much in the building up of a worthy public medical service.

Born in Hamilton, Scotland, the son of Lauren and Madeline Cooper Adie, Dr. Adie attended t

* Asterisk indicates that item is from local newspaper.

Medical News

Requirements for Processing Human Blood for Transfusions

The regulations contained herein were published in the March 1 issue of Health News, official publication of the New York State Department of Health.—Editor

REGULATIONS governing human blood donors, human whole blood, human plasma, human serum, or other human blood derivatives used for transfusion purposes were established by the Public Health Council at its meeting in Albany on February 19. These regulations, effective March 1, are embodied in a new chapter of the State Sanitary Code, Chapter IV-A, which appears in the supplement to the March 1 issue of *Health News*. It is believed that this is the first regulatory action taken by a state body in this field.

The requirements prescribed in the new chapter are designed to meet the need for basic standards to insure the safety of human blood products which has been experienced by hospitals and laboratories engaged in processing human blood and in providing transfusion services. They were adopted only after long and careful deliberation by the Council and a critical review by representatives of several hospitals, the National Institute of Health, the Office of Civilian Defense, the Medical Society of the State of New York, and other interested agencies.

The possible dangers from the use of improperly prepared or stored human blood products for transfusion purposes were first discussed by the Council in 1941, thought being given to the need for regulatory action to protect the public. At that time, acceptable methods of preparing, storing, and testing frozen and dried blood plasma still lacked stability. As processing practices became more stable and it appeared that the establishment of blood plasma banks would become widespread and might include many small institutions lacking adequate equipment and qualified personnel, regulatory action was deemed desirable. Accordingly, in June of 1942, a committee of the Council was designated to study the subject and to prepare a suitable amendment to the Sanitary Code. Exhaustive discussions following consultation of authoritative sources and further detailed study of the subject constituted a major part of the proceedings of subsequent Council meetings. Numerous revisions of the amendment were prepared to care for not only changes affecting the technical aspects but also decisions on such overall factors as a determination to distinguish between the requirements for commercial laboratories and other laboratories and hospitals and to regulate by requiring careful recording of basic information instead of listing certain specific requirements as to how the blood should be collected, processed, stored, and used, the purpose being to promote progress in the development of blood processing while fixing responsibility for the procedure on the part of the laboratory or institution. It was not until February, 1943, that the Council finally accepted Chapter IV-A as reflecting the views of the members in practical form.

The addition of the new chapter entailed certain changes in the present Chapter IV, which also appear in the accompanying supplement.

CHAPTER IV-A

Human Blood Donors, Human Blood, Human Plasma, Human Serum, or Other Human Blood Derivatives

Regulation 1: The methods of preparation, distribution, and use of human blood, human plasma, human serum, or their derivatives for transfusion regulated. The methods of preparation and distribution of human plasma, human serum, or their derivatives to be sold or offered for sale by commercial biological laboratories for transfusion including the collection of blood, sterility and safety tests, packaging, labeling, dating, storage, and records of distribution shall conform to the requirements of the National Institute of Health of the United States Public Health Service. The methods of preparation, distribution, and use of human blood, human plasma, human serum, or their derivatives by other laboratories or by hospitals for transfusion shall conform to Regulations 2 to 8, inclusive, of this chapter.

Regulation 2: Laboratory tests to be made in an approved laboratory. Laboratory tests required as an aid in determining that blood donors are free from communicable disease,* including malaria and syphilis, and tests of sterility required to determine that the blood, plasma, serum, or any derivative of them is suitable for purposes of transfusion shall be made in a laboratory approved for such examinations by the State Commissioner of Health, in a laboratory licensed by the Federal Security Agency for the preparation of human blood plasma, serum, or other human blood derivatives, or in a laboratory maintained by the United States Army, Navy, Veterans Bureau, or Public Health Service.

If, owing to an emergency, a specimen of the donor's blood cannot be sent to an approved laboratory prior to the transfusion of blood, a preliminary test for evidence of syphilis shall be made. In every case, a specimen of blood shall be collected from the donor at the time of transfusion and sent to a laboratory approved for the serologic test for evidence of syphilis.

Regulation 3: Blood processing laboratories or hospitals to submit a statement and to keep records. Laboratories or hospitals engaged in or undertaking the processing of human blood, human plasma, human serum, or their derivatives for transfusion shall submit to the State Commissioner of Health a statement of the procedures used in the preparation, testing, and storage of the product or products sold, distributed, or offered for use. Complete and accurate records shall be kept by such laboratories or hospitals. The premises, equipment, procedures, records, and circulars of instruction shall be open to inspection by the State Commissioner of Health or

* See Article III, Section 24-A, Public Health Law.

Niagara County

The history of the medical profession in Niagara Falls for a half century was retold on February 22 as old friends and professional associates of Dr. Frederick N. C. Jerauld honored him at a dinner in the Niagara Falls Country Club, Lewiston Heights, in observance of his "golden jubilee" as a physician and surgeon.

Approximately 70 physicians from the western New York and Ontario areas attended the dinner, in addition to many laymen who had been associated with Dr. Jerauld during his long residence and practice in this city. Toastmaster was Dr. Thomas J. McBlain, whose fiftieth anniversary as a physician and surgeon was observed two years ago.*

Oneida County

The use of drugs in the treatment of burns and shock from burns was described on February 18 by Dr. Emmett A. Dooley at a dinner meeting of the Utica Academy of Medicine in Utica.

Dr. Dooley is a member of the staff of the Morristania Hospital, New York City.*

* * *

Dr. Frank J. Slater discontinued his medical practice in Clinton on March 1 to join the staff of the Slocum-Dickson Clinic in Utica. He will specialize in internal medicine and anesthesia.

Queens County

The March 19 "Friday Afternoon Talk" will be entitled "Differential Diagnosis of Low Back Pain" Dr. Samuel Kleinberg, orthopaedic surgeon, Hospital for Joint Diseases, and consultant orthopaedic surgeon, Rockaway Beach and Israel Zion Hospitals, will be the speaker.

The speaker on March 5 was Dr. Harold Pardee, whose subject was "Cardiac Emergencies." Dr. Pardee is associate physician at New York Hospital, and cardiologist at Polyclinic Hospital.

* * *

There is an urgent need for more physicians for the Pre-Induction Examining Teams in Queens Doctors who have already volunteered for the work are urged to report for duty, and additional ones are asked to offer their services.

Richmond County

Doctors and dentists of Staten Island gathered on March 10 at 9 p.m. for a joint meeting of the Richmond County Medical and Dental Societies in the Richmond Health Center, St. George.

The program, arranged by the Dental Society, included a talk by Dr. Leo M. Taran, medical director of St. Francis Sanitarium for Cardiac Children, Roslyn, Long Island, and chief of the children's cardiac clinic at Kings County Hospital.

Dr. Taran's topic was "Dental Care of Children with Rheumatic Heart Disease."

Officers of the medical society attended a dinner in honor of Dr. Taran in Lazzari's Restaurant, Rosebank, before the meeting.

Schenectady County

Dr. Richard B. Cattell of the surgical staff of the Lahey Clinic in Boston was the speaker at the February meeting of the county society.*

Tioga County

On February 13, Dr. Peter Irving received the following letter, with a clipping enclosed, from Dr. Paul B. Brooks, deputy commissioner of the State Health Department:

"Assuming that you are interested in expressions of intelligent laymen concerning their physicians, I am enclosing a clipping from the editorial page of the *American Agriculturist* of January 16.

"The doctor to whom Mr. Eastman referred was Dr. Hiram L. Knapp, of Newark Valley, New York, whom I take to be the older of the two men by this name listed in the latest edition of the State Medical Directory."

The item, an editorial by E. R. Eastman, follows:

But the Old Man with the Scythe with whom he had contended for years finally came for the doctor himself. Then the folks, mostly farmers, came pouring out of the hills in an unending procession of callers to pay their last respects to "Old Doc," to the friend on whom they and their fathers before them had called when in trouble, and never called in vain.

For fifty years, Dr. Knapp rode the hills and valleys of my home town, one of the finest of that great breed of men now rapidly disappearing—the country doctor. Dr. Knapp's father, grandfather, and great-grandfather were doctors, and all of his four sons are either doctors or dentists.

My memories of Dr. Knapp go back to the time on the old farm when my youngest brother Albert, then a small boy, was deathly sick with pneumonia. Worried and depressed, every member of the family watched the old hill road every morning, anxiously looking for the doctor to come crawling down through the drifts with his horse and cutter. When he came, his keen sense of humor, his jolly laugh, and his unfailing optimism changed the whole atmosphere in the home and in the sick room, and had as much to do with the recovery of his patient as his pills. His sense of humor was shown by a sign in his office over which he and I often laughed together "Take my pills and grow fat."

Through all of Mother's later years, Dr. Knapp took care of her and kept her alive and happy well into her eighties, in spite of the fact that she always had a weak heart. When she died, I came on him suddenly, staring unseeing out of the kitchen window, with tears in his eyes.

Tompkins County

A regular meeting of the county society was held in the Cafeteria of Tompkins County Memorial Hospital on Tuesday evening, February 16, at 8:15 p.m.

Neal E. Artz, Ph.D., associate professor of physiological chemistry, Syracuse University, and Dr. John J. Bourke, state medical officer, New York State Health Preparedness Committee, gave a program on "Medical Aspects of Chemical Warfare."

This program was arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York, in cooperation with the Health Preparedness Commission of the State War Council.

Discussion on compensation fees was held after the scientific program.—Dr. J. N. Frost, President

* * *

At the county society meeting on February 16, Dr. Richmond Douglass was elected alternate delegate to the State Society.—Dr. W. Wilson, Secretary

Westchester County

Members of the Westchester County Woman's Medical Society heard Dr. Vera Collins discuss "Infection of the Gastrointestinal Tract" at a meeting on February 24 at the home of Dr. Mary B. Sanford in Mt. Vernon.

public schools of Scotland. He came to this country in 1913 and became a citizen in 1919.

He was assistant secretary of the Minneapolis Civic and Commerce Association, 1914 to 1918, associate secretary of the War Labor Policies Board in 1918, impartial chairman of the men's and boy's clothing industry, New York City, 1919 to 1920, and campaign manager of the American City Bureau, New York, 1921 to 1922.

Dr. Adie served as secretary of the Charity Organization Society of Buffalo and secretary of the Council of Social Agencies, Buffalo, before becoming New York State Commissioner of Social Welfare.

He was a professorial lecturer in sociology and social work, a member of the curriculum committee of the University of Buffalo, and a member of the faculty of the New York School of Social Work and of Fordham University.

He was named State Social Welfare Head in July, 1932, to succeed Charles H. Johnson.

During Commissioner Adie's tenure the social welfare department became responsible not only for supervision of the public assistance programs, which the state brought into consonance with provisions of the Federal Social Security Act, but also for supervision of the unemployment relief program, previously the responsibility of the temporary Emergency Relief Administration. The latter was abolished in June, 1937.

The Department was reorganized for broader duties and established a decentralized administration through which it might maintain a more intimate relationship with the various localities.

"Poor naked wretches, wheresoe'er you are,
That bide the pelting of this piteous storm,
How shall your houseless heads and unfed
sides,
Your loop'd and windowed raggedness, defend you
From seasons such as these? . . ."

Broome County

Binghamton's physicians are losing valuable time hunting for houses with concealed street numbers, and want the City Council to do something about it.

In behalf of the county medical society, Dr. Victor W. Bergstrom, society secretary, wrote to the council asking that proper numbering of residences be required.

"Many homes," he wrote, "are conspicuous by the absence of a number visible from the street. At night, particularly, this makes it most inconvenient and requires considerable time on the part of a physician making calls to find the residence for which he is looking.

"In these days, when physicians are so scarce, any small item in the economy of time is important. The society, therefore, asks that you consider this problem and that some action be taken to induce the citizens to number their houses properly."*

. . .

When old age assistance or home relief clients in the City of Binghamton get an order for medicine now, the chances are they will be able to have it filled immediately at the clinic of the City Welfare Department.

With the cooperation and advice of the county society and its members in the city, the drug supply of the clinic has been increased approximately 100 per cent since the first of this year.

Three nurses are employed at the clinic, and one is on duty in the office all during the week. Week

ends and after hours one of the nurses always can be reached through police headquarters in case of emergency.

On clinic days, which are Wednesday afternoon and Saturday morning, approximately 15 persons are examined at the clinic, according to Mrs. Helen M. Hickey, supervising nurse. In addition, between 10 and 15 others come in each day to obtain medicine. Mrs. Hickey is assisted by Miss Helen L. Borland and Mrs. Bernice Reynolds.*

Dutchess County

Dr. Max M. Simon, senior attending surgeon and orthopaedist at St. Francis' Hospital, has been appointed surgeon to the Poughkeepsie Board of Education's new orthopaedic clinic. The first clinic session was held at the high school on March 2.

Dr. Helen L. Palliser, school physician, with the assistance of Dr. Theodore M. Rimai and Dr. Ernest K. Kaluza, has been carrying on physical examinations of all school pupils. "Screening" by these examinations will make it possible to refer to Dr. Simon's attention those children who require the services of an orthopaedist, according to Superintendent of Schools Holden. Dr. Simon will prescribe corrective exercises, which will be given under the direction of Samuel J. Kalloch, who has charge of the physical education program.*

Erie County

We quote, in part, an interview published in the Buffalo *Courier-Express* of February 21:

"In nearly fifty-two years of practice in Buffalo, Irving White Potter, M.D., internationally known specialist in obstetrics, has delivered more than 25,000 babies. With most of our young doctors off to war and an exceptional increase in births, Dr. Potter works harder and longer than many a man of 50. And few men enjoy their work as he does.

"Retire? Not while I can stand on my feet; not while my hand is steady; not so long as I'm capable of doing my own thinking," he declares, adding: "On my seventy-fourth birthday, last November 12, I officiated at four cesarians and assisted my son, Dr. Milton G. Potter, with another delivery.

"I believe a doctor has no business to retire as long as he can be of service. Several physicians I know have done their best work when past 60 years old. After long and varied experience, a doctor may develop a new technic that is an important contribution to the medical profession. Experience is of great value to a doctor, and I think he ought to practice as long as possible in order to make the most of it."

New York County

To protect public health against a possible deficiency of fats and fat-soluble vitamins in the national diet, the Public Health Relations Committee of the New York Academy of Medicine on February 15 recommended that the manufacture, distribution, and consumption of oleomargarine be encouraged. It proposed mandatory fortification of all oleomargarines with vitamin A at a uniform level of 9,000 United States Pharmacopoeia Units per pound of finished product; W.P.B. permission for the use of fats and oils for the manufacture of oleomargarine in such quantities as would offset the necessary withdrawal of butter from civilian use; suspension of federal and state laws restricting the manufacture and distribution of oleomargarine for the duration of the butter crisis; and public education in the nutritional value of fortified oleomargarine.

Medical Legislation

The following bulletin (No. 4) was issued on February 20 by the Legislative Bureau of the Medical Society of the State of New York.

State Legislation

THE conference of county chairmen was held in Albany on Friday as previously announced. It was most gratifying to the Committee to have 33 of the 61 County Societies represented. It must be considered indicative of a live interest that physicians are taking in legislative matters when such a large number of men can arrange to spare the time—and in some instances more than two days—necessary to come to Albany for the purpose of discussing the bills that are being considered by the Legislature. All, except a few in the immediate vicinity of Albany, had to come by railroad this year instead of automobile, and had stories to tell of the difficulty they had in obtaining seats or the trains had in maintaining their schedules. A list of the counties represented follows:

Albany	Jefferson	Oswego
Allegany	Kings	Putnam
Cayuga	Madison	Queens
Chemung	Monroe	Richmond
Chenango	Nassau	Rockland
Clinton	New York	Schenectady
Cortland	Niagara	Schoharie
Erie	Oneida	Tompkins
Essex	Onondaga	Warren
Genesee	Orange	Washington
Greene	Orleans	Westchester

As usual, the merits of the bills which we have been following were discussed in open forum and a decision reached as to whether they should be supported or opposed. In a number of instances bills were approved in principle but objection was expressed to the manner in which they are drafted. At the close of the conference the Committee impressed upon the chairmen the importance of taking up with their legislators at home the decisions reached at the conference. Especially was it asked that this be done in the interests of the x-ray bill. A report of the action of the conference follows:

Approved

S.Int.9—Wicks (Optician bill)

Approved except for the provision on page 8, lines 16 and 17 (Pr. 9) which states: "The Department (of Education) shall issue a license to practice optical dispensing to any duly licensed physician or optometrist who pays a fee of \$25." The objection was that physicians should be permitted to dispense glasses without paying the extra fee of \$25. This objection has been taken up with the sponsor of the bill since the conference and our attention is called to provisions in Section 1519, page 17, line 26, to line 9, page 18, inclusive, in which it is specifically stated that nothing in this article shall be construed to limit or restrict in any way the practice of medicine by duly licensed physicians or to limit or restrict a duly licensed physician from the practices enumerated and defined in the article and, further, that a licensed physician shall have all the rights and privileges which may accrue under this article to dispensing opticians. This apparently meets the objection raised at the conference.

*S.Int.21—Dunnigan }
A.Int.69—Stringut }*

Creating commission to formulate plan of social security to

*S.Int.278—W. J. Mahoney }
A.Int.335—Mailler }
S.Int.301—Young }
A.Int.427—Younglove }
S.Int.311—Hampton }
A.Int.362—Emma }
S.Int.513—Young }
A.Int.647—Milmoe }
S.Int.703—Williamson }
A.Int.577—Owens }*

A.Int.43—M. Wilson

A.Int.97—Sullitan

A.Int.544—Breed

A.Int.666—Mitchell

A.Int.907—Molinari

Disapproved

*S.Int.34—Joseph }
A.Int.28—Jack }
A.Int.55—Dezany }
S.Int.37—F. J. Mahoney }*

*S.Int.206—W. J. Mahoney }
A.Int.279—Kreinbinder }
S.Int.537—W. J. Mahoney }*

S.Int.613—Marasco

*S.Int.699—Condon }
A.Int.350—M. Wilson }
A.Int.135—Austin }*

*A.Int.333—C. D. Williams }
A.Int.334—C. D. Williams }
A.Int.636—Fogarty }*

A.Int.669—Suitor

Approved in Principle

S.Int.72—Quinn

S.Int.557—Williamson

*S.Int.522—Anderson }
A.Int.643—Knauf }*

S.Int.523—Baum

No Action

*S.Int.605—Burney }
A.Int.672—Pillion }
A.Int.739—McCarron }*

Bills Introduced Since Last Bulletin Was Issued

Senate Int. 605—Burney, relative to licenses to practice certain professions following military service. Referred to National Defense Committee.

Comment: Same as Assembly Int. 672—Pillion, reported in Bulletin No. 3. No action taken on this bill by conference.

Senate Int. 613—Marasco, provides in action to recover damages for personal injuries, plaintiff shall be entitled to copy of report of each physical examination to which he submitted pursuant to order. Referred to the Codes Committee.

Comment: To give the plaintiff a copy of the report of physical examination made at the request

meet exigencies of war and postwar conditions
In relation to emergency health and sanitation areas

In relation to the office of assistant town physician
Habit-forming drugs or medicine, sale at wholesale

Medical Grievance Committee

Sanitary rules and regulations, power of a county health board to adopt

Creating commission to study feasibility of establishing facilities for rehabilitating persons recovering from tuberculosis
X-ray bill

In relation to persons infected with venereal disease
Jurisdiction of magistrates, New York City

Noxious weeds, removal in cities

Health insurance

Working mothers, care of children

Physiotherapy bill

Re: opticians and practice of optometry
Civil Practice Act, reports of physical examination to be given plaintiff

Injured employees, care and treatment by podiatrists

Removal of noxious weeds, general

Nurses, license

Nurses, license

Workmen's compensation, mentally disabled

Registration by health officer and investigation by coroner of deaths occurring without medical attendance

Creating consumers' bureau in State Department of Health
Operator of motor vehicle, physical exam.

Relating to advertising of eye-glasses and materials used for ophthalmic purposes

Prohibiting employment of domestic workers suffering from communicable disease

Licenses, certain professions, military service

Workmen's compensation, physical examination of injured employee

On February 16 there was a joint meeting of the county society with the Westchester Society of Gastroenterology, whose president, Dr. Ferdinand M. Jordan, of White Plains, introduced the guest speaker of the evening, Dr. S. Allen Wilkinson, of the Lahey Clinic in Boston. Dr. Wilkinson presented an illustrated paper on the topic "Gastric Ulcer and Carcinoma." A lively discussion followed Dr. Wilkinson's paper.

In its business session, the society adopted memorial resolutions on the late Dr. Norman B. Sowell, of Briarcliff Manor, who died on October 3, 1942, and the late Dr. Louis B. Chapman, of New Rochelle, a former president of the society, who died on January 9.

The public health committee, under the chairmanship of Dr. John B. Ahouse, of Yonkers, announced the development of a county-wide campaign for smallpox vaccinations to be carried on in the late spring and stated that the committee would seek the cooperation of local civilian protection agencies and war councils.

The public health committee also announced that a letter is being sent to the staffs of hospitals in the county, describing the need of nurses for the Army and Navy. The committee is urging that physicians discourage unnecessary use of nurses by their private patients and promote the use of group nursing by private-duty nurses in order to conserve nurse power in local institutions. The committee is also recommending other steps to bring back into service local nurses who have not recently been engaged in nursing but through whose service younger nurses eligible for military duty could be released from the hospitals.

It was announced that the society had been awarded a certificate of appreciation by the National Red Cross in recognition of its services rendered in connection with the blood donor program, for which the Red Cross has received the Army and Navy "E."*

The possibility that rats and mice play an important part in the spread of infantile paralysis has resulted from extensive studies made of last summer's cases in White Plains by Dr. Gilbert Dalldorf, of Bedford Road, director of laboratories at Grasslands Hospital.

In an article published in the February issue of the *American Journal of Public Health*, Dr. Dalldorf records the recovery of a rodent-paralyzing virus from house mice collected in an epidemic area of human poliomyelitis, and the apparent transfer of poliomyelitis to rodents from one of the human cases involved in this epidemic.

Any further conclusions drawn from these studies are highly speculative, Dr. Dalldorf emphasized. If the same facts are noted in independently studied cases next summer, the discovery will mean more, he said.

Under no circumstances, said Dr. Dalldorf, would he permit tests on human beings before much more experimental work has been done in the laboratory. The very uncertain and complicated characteristics of the disease mean that any discovery must be treated with the utmost conservatism, he said.

Suspicion was pinned on mice and other rodents by Dr. Dalldorf and independently by Dr. C. W. Jungeblut, of Columbia University, after Westchester Health Commissioner William A. Holla had a "hunch" about rodents during an investigation of the death of a White Plains fireman last September. A dead mouse was found on the fireman's coal pile and other infected mice were discovered in the same neighborhood, where four more cases of poliomyelitis developed in the next ten days.

Two special courtesies for members who have gone into the services have been arranged by the Westchester County Medical Society, both of them interesting enough for public attention and discussion.

For instance, the society is distributing to its members an office poster, which requests patients to remember their former physicians—if now in service—and to return to them after the war is over.

The society has also engaged in negotiation with the New York Telephone Company, with the result that a plan has been worked out whereby doctors who go into service are permitted to retain their telephone numbers, so that their telephone service can be reinstated with the same number on their return to civil practice.

"This is now understood to be the policy of the company," says a society bulletin, "and these telephone numbers will be reserved as far as possible."

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Samuel Barris	73	Baltimore	December 11	Manhattan
J. Willis Candee	87	N.Y. Hom.	February 15	Utica
Charles S. B. Cassasa	56	P. & S., N.Y.	February 22	Manhattan
Augustus E. Cordes	70	Albany	February 14	Brooklyn
Gilbert D. Forbes	61	Buffalo	February 10	Kendall
Samuel Fuxon	46	Tufts	February 18	Brooklyn
William A. Herman	41	Georgetown	February 17	Manhattan
Henry G. Hughes	—	N.Y. Univ.	February 17	Schenectady
Albert J. Lawler	65	Buffalo	February 16	Niagara Falls
Victor K. Martin	48	Buffalo	February —	Buffalo
Henry Smoyer	72	Niagara	February 18	North Tonawanda
Joseph T. Travers	55	L.I.C. Hosp.	February 20	Manhattan

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of the court might complicate the trial very much because the plaintiff's lawyer would certainly take whatever advantage he could of the report of the examination. Considered by conference and disapproved.

Senate Int. 699—Condon; Assembly Int. 880—M. Wilson, provides that in workmen's compensation cases injured employee may be treated by licensed podiatrist authorized by industrial commissioner to render such care; provides for schedules limited to defined localities, of minimum charges and fees therefor. Referred to the Labor Committees.

Comment: Authorizes podiatrists to treat cases under the Workmen's Compensation Law. Disapproved by conference on the grounds that at present, where the services of a podiatrist are needed, cases are referred to them for treatment.

Senate Int. 705—Williamson; Assembly Int. 877—Owens, provides that rules and orders of county health board shall state date on which they take effect, copy signed by county health commissioner or deputy to be filed in State Health Department, county health department and county clerk's office; they must be published from time to time as sanitary code, certified copy to be furnished for fee of \$1.00; such code shall have effect of law. Referred to Internal Affairs Committee in Senate and Health Committee in Assembly.

Comment: Considered by conference and approved.

Senate Int. 785—Hampton; Assembly Int. 958—Archinal, provides that restriction on public hospitals treating workmen's compensation cases only during emergency shall not apply where carrier or employer refuses or neglects to authorize hospital service after employee requested that they furnish same or when nature of injury required such services and employer or agent neglected to provide same; injured employee may then select any hospital. Referred to the Labor Committees.

Assembly Int. 789—McCarron, strikes out provision giving employee or carrier in workmen's compensation cases right to select and pay physician to participate in physical examination required by

industrial commissioner or board. Referred to the Labor Committee.

Comment: This bill has been before the Legislature for a number of years. It would require that when an injured workman is to be examined by a physician from the Department of Labor, no other physician shall be present. Last year the conference saw the reason for the amendment but suggested that it should be so drafted that either no physician shall be present or both the physician for the carrier and for the injured employee. This year the conference was of the same mind but took no action on the bill.

Assembly Int. 907—Molinari, provides that when ragweed or other noxious weed or plant is growing in any city, local health board may declare it to be a nuisance and order it destroyed or abated; if order is not complied with, local board may enter property and remove same. Referred to the Health Committee.

Comment: The bill was approved by the conference with the suggestion that it should be extended to cover incorporated villages.

Among the bills to be mentioned casually this time is one which would make it a misdemeanor to grow marihuana without a license.

Action on Bills

S.Int.278—W. J. Mahoney Health, sanitary areas, designate—Third Reading
S.Int.311—Hampton Habit-forming drugs—Third Reading
S.Int.328—Bewley } Tax deductions, medical expenses, etc. LAW CHAPTER 12
A.Int.377—Whitney }

Hearings

March 2—2:00 P.M.

A.Int.362—Emma

Hearing before Assembly Education Committee
Habit-forming drugs or medicines, sale at wholesale

JOHN L. BAUER
WALTER W. MOTT
LEO F. SIMPSON
Committee on Legislation
JOSEPH S. LAWRENCE
Executive Officer

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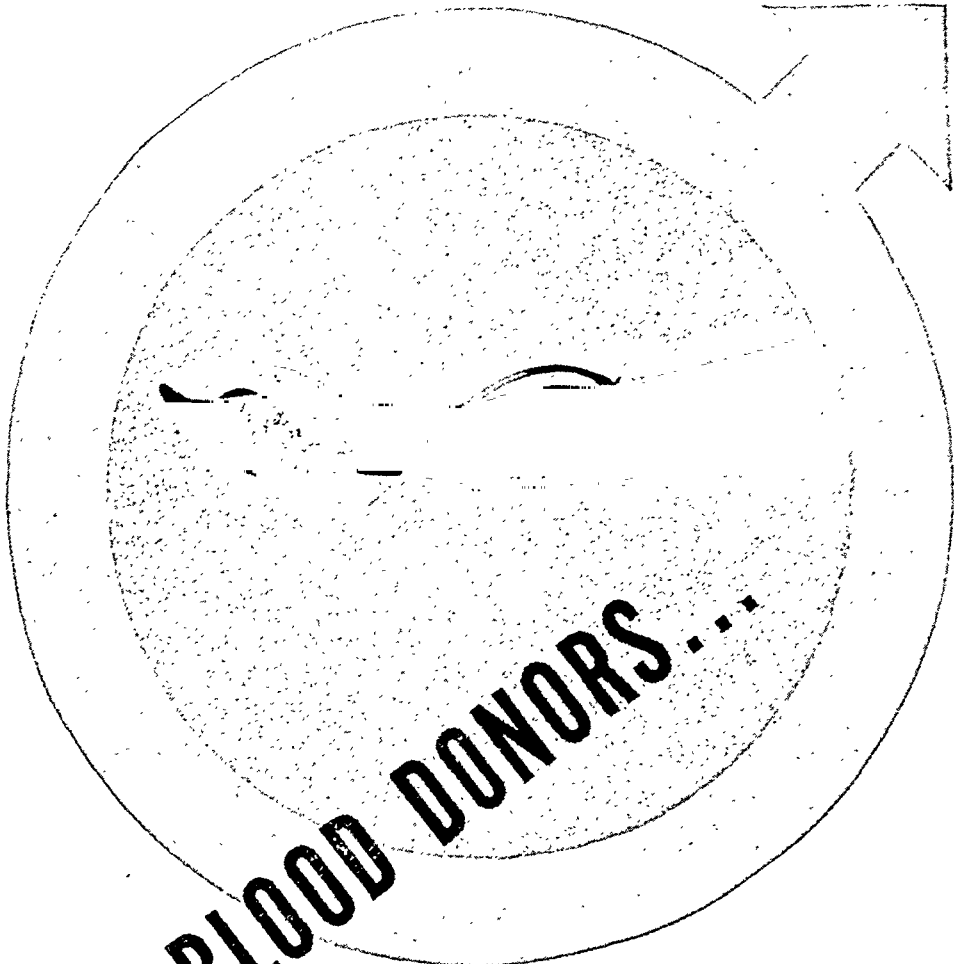
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but not from the
Patient

†Fowler and Borer: "Rate of Hemoglobin Regeneration in Blood Donors." J.A.M.A., 118:421:1942.
•Reg. U. S. Pat. Off.

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Honor Roll

Medical Society of the State of New York

Member Physicians in the Armed Forces

Supplementary List

The following list is the fifth supplement to the Honor Roll published in the December 15 issue. Other supplements appeared in the January 1, January 15, February 15, and March 1 issues.—*Editor*

A

Adler, K. (Capt.)
N.P. School, Lawson Gen'l. Hosp.,
Atlanta, Ga.
Axinn, C.
183-06 89 Ave., Jamaica, N.Y.

B

Bartha, N. P.
22-11 37 St., Long Island City, N.Y.
Brickner, M. E.
42 First Ave., Gloversville, N.Y.
Brillinger, F.
Peekskill, N.Y.
Brody, E. L.
167 E. 79 St., N.Y.C.

C

Campbell, J. A. (Capt.)
A.P.O. 813, c/o P.M., N.Y.C.
Cannizzaro, L. P.
8701 Shore Road, Brooklyn, N.Y.
Collins, J. T.
92-12 52 Ave., Elmhurst, N.Y.

D

Dasch, J. (Lt.)
343 Inf., A.P.O. 86, Camp Howze,
Tex.
Diana, M. A.
125 E. 63 St., N.Y.C.

F

Fettes, D. S., Jr.
205 Ave. J, Brooklyn, N.Y.
Flood, C. C.
25 Morris St., Yonkers, N.Y.
Friedman, H.
Norwich, N.Y.

G

Gershwin, H. (Lt.)
Carlisle Barracks, Pa.
Gilbert, G. A.
1414 Union St., Schenectady, N.Y.
Gould, C. K. (Capt.)
608 C.A. (AA), Fort Bliss, Tex.
Granieri, A. H.
27-14 Crescent St., Astoria, N.Y.
Green, D. M. (Capt.)
Station Hosp., Camp McCain, Miss.
Gridley, N. G.
Horseheads, N.Y.

H

Hobler, R. E.
421 W. Church St., Elmira, N.Y.
Hust, R. F.
Mount Upton, N.Y.

J

Jabbour, J. M.
125 Prospect Pk. W., Brooklyn,
N.Y.

Jacobs, A.

U.S. Coast Guard Sta., Harrisburg
Barracks, Houston, Tex.
Jacobsen, A. (Capt.)
Fitzsimons Gen'l Hosp., Denver,
Colo.
Jensen, L. G.
100 Central Ave., St. George, S.I.,
N.Y.

K

Kaback, E. R.
35 South St., Middletown, N.Y.
Kaplan, D.
310 E. Church St., Elmira, N.Y.
Koch, M. (U.S.P.H.S.)
Coast Guard Sta., Panama City,
Fla.
Koren, M.
104-49 Ave., Corona, N.Y.

L

Laidlaw, J. B.
176 S. Goodman St., Rochester,
N.Y.
Lechner, S. (Lt.)
183 Station Hosp., A.P.O. 942,
c/o F.M., Seattle, Wash.
Lipani, J. G.
3974 Amboy Rd., Great Kills, S.I.,
N.Y.
Littenberg, S. H.
Florida, N.Y.

M

Makarewicz, L. J.
754 Fillmore Ave., Buffalo, N.Y.
Malin, J. M. (Capt.)
191 St. Marks Pl., S.I., N.Y.
Mangiaracina, C. C.
88-04 Woodhaven Blvd., Wood-
haven, N.Y.
Marshall, H. B.
408 W. Church St., Elmira, N.Y.
Mason, B.
63 Wickham Ave., Middletown
N.Y.
Mastrota, J. A.
3024 Clarendon Rd., Brooklyn,
N.Y.
McCulloch, E. C.
Procter & Gamble Mfg. Co.,
Mariners Harbor, S.I., N.Y.
McGarvey, D. F.
277 Alexander St., Rochester, N.Y.
Meyerhoff, K. H.
947 State St., Schenectady, N.Y.
Myers, F. D.
Slate Hill, N.Y.

P

Paterno, J. G.
635 Carroll St., Brooklyn, N.Y.
Pettit, S. C.
774 Jewett Ave., Westerleigh, S.I.,
N.Y.
Pine, I.
356 Clinton St., Binghamton, N.Y.
Poritz, H.
384 Bard Ave., West Brighton,
S.I., N.Y.

R

Ridall, E. G.
410 W. Church St., Elmira, N.Y.
Rubenstein, L.
U.S. Coast Guard Sick Bay, Sea
Isle City, N.J.

S

Sachs, P. M.
57 W. 57 St., N.Y.C.
Sanger, M.D.
666 Eastern Parkway, Brooklyn,
N.Y.
Schloss, J.
7 Gardner Ave., Middletown, N.Y.
Schoen, H. E.
710 Forest Ave., West New
Brighton, S.I., N.Y.
Schoenholz, S.M.
Campbell Hall, N.Y.
Schwarz, W.A.
57 Broad St., Stapleton, S.I., N.Y.
Sharpe, J.D.
1148—5 Ave., N.Y.C.
Sidoti, J.S.
70 New Street, Port Richmond,
S.I., N.Y.
Sojewicz, A.E.
1408 W. Genesee St., Syracuse, N.Y.
Sokolove, C.
3050 Richmond Ter., Mariner's
Harbor, S.I., N.Y.
Stillman, I.W.
1028 Bushwick Ave., Brooklyn,
N.Y.
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300 Morningstar Rd., Port Rich-
mond, S.I., N.Y.

Z

Zuger, B. (Surg. U.S.P.H.S.)
31 Hart St., Brooklyn, N.Y.

Publicity

The State Nursing Council now has a functioning Publicity Committee which aims to assist local councils in publicizing their programs. It has been suggested that all local councils appoint publicity chairmen to be responsible for local publicity in cooperation with their Council chairman, local student recruitment chairman, and supply and distribution chairman. Although suggested publicity will be sent from the State Committee (often in form to be presented to the local newspapers) all local committees are asked to initiate publicity which may be timely in their areas, and to report to the State Nursing Council on such publicity so that the planning may be shared with other committees.

Newly appointed publicity chairmen may receive back numbers of publicity letters upon request to State Nursing Council headquarters, 152 Washington Avenue, Albany.

Stationery

It is again called to the attention of local councils that State Nursing Council stationery may be purchased at a cost of \$0.85 per 100 sheets of $\frac{3}{4}$ size; and \$1.00 per 100 full size sheets.

EMILY L. CREEVEY, R.N.
Executive Secretary

N.Y.U. ADDS COURSE IN POLIOMYELITIS

Through the grant provided by the National Foundation for Infantile Paralysis, courses have been established at New York University on "The Modern Concepts of Poliomyelitis."

A practical course for training physical therapy technicians has already been in progress under the auspices of the School of Education, and beginning March 29 a second course under the auspices of the College of Medicine will be given for physicians. The latter course is designed to cover epidemiologic, pathologic, and physiologic aspects of poliomyelitis, together with the diagnosis of the disease and its treatment by chemical, serologic, orthopaedic, and physical therapeutic means, including the Kenny Method.

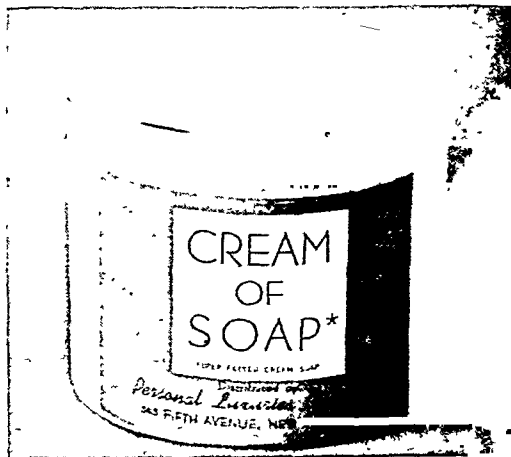
A series of eight lectures at weekly intervals will be given by visiting lecturers from various medical schools throughout the country, and demonstrations of the various techniques will be given in the hospital.

Additional information can be obtained from the Secretary, New York University College of Medicine, 477 First Avenue, New York City.

USED NEEDLES RETURNED TO SERVICE

Physicians who serve as local draft board medical examiners have been urged by the New York City Department of Health to return all used blood-letting needles. These needles are made of vital materials, and their salvage and return, for re-sharpening and redistributing, is a matter of great importance to the war effort because of the large quantities needed in the serologic examination of selective service registrants. Needles should be rinsed in cold water after use and returned to the Health Department with the blood specimens.

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New York State Nursing Council for War Service

Bulletin No. 4 (February 18, 1943)

Progress in Organization of Local Councils for War Service

Within the past two months the organization of local Councils for War Service has made rapid progress. At the present time there are 61 local councils set up and functioning, with committees on student recruitment and on supply and distribution of nursing service. In addition, many have also appointed publicity committees.

Recruitment of Student Nurses

The increased number of strong county and city nursing councils is making it possible for the student recruitment program to be carried out on an intensified scale. There was an increase of 1,226 admissions to schools of nursing in New York State during the two-year period from July 1, 1940, to July 1, 1942, and since that time summer and fall, 1942, admissions have been stepped up.

When the total number in spring, 1943, classes is known, it is fully expected that it will go well beyond last year's figures for the same period and may very probably meet the quotas set by the National Nursing Council for War Service of 5,610 for the school year 1942-1943. Enrollments have exceeded any previous peak of enrollment, including that of the World War I period. The addition of classes starting in the summer has contributed to this increase, and the opening of central schools of nursing will make possible continued increases in enrollment.

At the opening exercises of the Central School Nursing program at Adelphi College, Garden City, Long Island, the degree of Master of Humane Letters was bestowed upon H. Lenore Bradley, Chairman of the Committee on Central Schools of Nursing. The establishment of this program at Adelphi and Keuka Colleges has set a pattern for a new type of nursing preparation and is arousing keen interest in other states as well as in New York.

The importance of careful selection of applicants to schools of nursing is borne out by studies of the Psychological Corporation (which tests applicants to schools of nursing), showing a decrease in the number of students who drop out of nursing courses. In the group of students entering New York State schools in 1935, 40 per cent dropped out before completing the course; in the group entering 1938, 24 per cent dropped out. Although this indicates the value of careful selection of students, the large number of students who withdraw from schools of nursing is a source of concern and great expense. During the first six months of nursing preparation the student is not of great practical value to the hospital and is a definite expense and loss if she drops out. This fact has to be kept in mind in a program which stresses the need for recruiting large numbers of students.

The U.S. Office of Education is cooperating in the Student Recruitment program. In their booklet "Professional Nurses Are Needed" they have outlined the role high schools can play in recruitment of students, in cooperation with schools of nursing, and local nursing councils. This program has been outlined for recruitment chairmen in recruitment newsletter No. 2.

Plans for "Open House" are in progress in many

parts of the state and have been described in recruitment newsletter No. 4.

The State Federation of Women's Clubs has begun the planning for its scholarship-raising program. Applications for scholarships are to be made by directors of schools of nursing on behalf of financially needy applicants to Mrs. Marie F. Kirwan, 20 South Broadway, Yonkers, New York.

Plans are under way for the cooperation of the State War Council in furthering student recruitment through their Block Plan program.

Newly appointed recruitment chairmen who have not received copies of the State Nursing Council Bulletins or the Recruitment Newsletters may have them by writing to the Council headquarters, 152 Washington Avenue, Albany. Their attention is also called to the use of recruitment material such as the poster "Become a Nurse," pamphlets "War Work with a Future," "Nursing and How to Prepare for It," the Directory of Schools of Nursing, and the article on admission requirements. All may be obtained from Council Headquarters.

Supply and Distribution of Nursing Service

Material is being prepared to serve as an interviewing guide to supply and distribution committees in conducting local surveys of nursing needs and resources. The first guide will cover hospitals; later suggestions will be offered to cover other agencies employing nurses.

The principle of a nursing supply board has been approved by the War Manpower Commission, and although details of its setup are not known, all local supply and distribution committees are strongly urged to conduct surveys and to bring local inventories of nursing power up to date.

Cooperation of the War Council Block Plan has been sought in locating inactive nurses, and details of this program will be reported in the near future.

Subcommittee on Nursing

The need for a closer tie-up with the State War Council has been recognized by the State Nursing Council. On the national level, a subcommittee on Nursing was set up under the Health and Medical Committee of the Defense Health and Welfare Services and serves as a means of channeling plans and information between government and the professional nursing organizations (represented by the National Nursing Council for War Service).

The State Nursing Council for War Service has requested the setting up of a Subcommittee on Nursing on a state level under the State Health Preparedness Commission to function in the same capacity as the National Subcommittee. Mr. Lee Mailer, Chairman of the State Health Preparedness Commission, has approved the creation of such a State Subcommittee and the membership of that subcommittee is now being considered.

It is suggested that local Nursing Councils acquaint themselves with local War Council activities and seek their cooperation in the Nursing Council program.

Compulsory Registration of Nurses

The State Nursing Council for War Service has gone on record as favoring compulsory registration of all nurses.

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HUMANISM

The Canadian Humanist Group, an organization studying reconstruction and rehabilitation plans in Canada and other countries, report some thoughts they have assembled in their publication, *Man*.

In discussing "*Humanism and the Making of the Future*," they emphasize that "not one of us is free from responsibility for the making of the future . . . Not one of us is without the power to contribute something to the making of the future."

Humanism is presented by them as being composed of two ideas:

- (1) The value of the individual.
- (2) The responsibility of the individual.

Accordingly, everyone must realize his own value and his own responsibility. Everyone must also appreciate and admit the value of the other person and his individual responsibility.

Stressing this theory, the article states, "One of the great discoveries of today is the persistent teachability of the human being. There is not a moment between birth and death in which the human being cannot acquire new skills. But none of us has developed to the full our imagination, our reason, our spiritual will, our life purpose, our powers of observation, of evaluation, our power to love, our power to heal, or our power to create. None of us has gone 'all out' in the living of this lifetime; none of us knows 'total living' as we might know it. Very few have developed fifty per cent of their natural capacity for experience or assimilation. It is the unlivid portion of each individual's life that is his real tragedy."

Deploing the obvious wastes the world has recently experienced in human life and the materials for sustaining human life properly, the article suggests that "we must determine to cooperate with each other in that larger area which is the common life, and tolerate each other in the little area of uniqueness."

Some of these things all have in common are:

"(1) The social structure of the nation. None of us can escape that whether it be conservative, socialistic, or dictatorial. (2) The laws of the nation. None of us can escape them. (3) The economic system of the nation. (4) The educational system of the nation, its schools, libraries and press. (5) The basic nature of the country, its fertility or its nonfertility, its psychic atmosphere and its history. None of us can escape these things."

Thus a large part of our lives is collective—a smaller part is unique (or individualistic).

"It is merely that the small part which is unique is supremely important to us. That is why, in the new society, while our collective needs must be protected, our need for the integrating factor of our personal uniqueness must also be protected. Here Humanism will play its part because of its basic belief in the individual man.

"Humanism conceives a dynamic democracy concerned with the detailed working out of a way of life in which education, training for labour, the right to expression of normal human emotions, are provided for; where marriage and the right to home and family will be based on the 'human demand' not on the 'effective demand' of the ability to pay in cash; where health will be provided for by a sound agriculture and normal living, with recreation, cultural activities and social security."

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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgement of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

Ultra-Violet Light and Its Applications. Including a Description of the Numerous Practical Applications Found for Ultraviolet Light and Fluorescence in the Industries, Sciences, and Arts. By H. C. Dake and Jack DeMent. Octavo of 209 pages, illustrated. Brooklyn, Chemical Publishing Company, 1942. Cloth, \$3.25.

The phenomenon of fluorescence is finding many valuable applications in medicine. This timely volume gives a complete account of these uses in a concise and interesting manner. It is not a textbook of ultraviolet therapy, and in this the title may be a little misleading. The value of fluorescence in diagnosis is rarely utilized to its full extent, usually because of a lack of understanding of the methods and apparatus used and their comparative simplicity. A study of this little volume will do much to correct this error. A chapter devoted to the use of fluorescence in the medical sciences and another to its uses in microscopy, research, and education are of particular interest. The book is well written, clearly printed and illustrated, and is to be highly recommended to all medical students and practitioners.

JEROME WEISS

Neuro-Anatomy. By Walter R. Spofford, B.S. (Oxford Medical Outline Series.) Octavo of 110 pages. New York, Oxford University Press, 1942. Cloth, \$2.00.

This outline prepared by Dr. Spofford consists of 102 printed pages interleaved with blank pages. The nervous system has been adequately subdivided, enabling one to study it as a whole or in subdivided groups.

The book is, as its name implies, purely an outline which enables the student to check his progress or to be better oriented as he studies from standard textbooks. It is designed primarily for the student but will also be found of assistance to anyone who is "brushing up" on neuroanatomy for advanced study. It must be used in conjunction with a regular textbook of neuroanatomy, for it is not illustrated.

The book is very well printed, well subdivided, and easy to read.

WARREN V. HUBER

Nasal Medication: A Practical Guide. By Noah D. Fabricant, M.D. Octavo of 122 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$2.50.

This book is a short practical guide in the complicated subject with which it deals. The author is an experienced investigator contributing a basic work himself and reviewing almost all the relevant literature to date. He cites briefly the work of the best authors and interprets their conclusions, applying them to nasal medication in the only correct way—that is, on an anatomic and physiologic basis.

This work is a splendid guide for rhinologists in particular but should be of great value to all medical practitioners, for nearly all prescribe nasal treat-

ment, frequently in time-honored but nevertheless faulty, or even bad, ways. Some of the author's conclusions are, as he states, open to further work and discussion, but they are essentially so sound that in following his guide we may expect much better nasal medication to result.

CHARLES R. WEETH

Gas Warfare. The Chemical Weapon, Its Use, and Protection Against It. By Colonel Alden H. Waitt. Octavo of 327 pages, illustrated. New York, Duell, Sloan and Pearce, 1942. Cloth, \$2.75.

The author of this book has divided his work into three main parts in order to develop the material in a logical and natural manner.

The first part describes the various types of chemical agents used in modern warfare and explains their mode of action. The second deals with the uses to which such agents may be put in combat service, a subject that will interest the civilian as well as the soldier. The third part presents the various methods for protection against gas attack and ends with the first aid treatment of casualties.

It is an excellent handbook, but much more; it is a fascinating presentation of a subject which in the mind of the average civilian is surrounded by clouds of superstitious fear. It ought to do much in dispelling the terror with which the ordinary citizen regards a gas attack because he will appreciate that for every form of attack there are natural limits and defensive methods.

ALFRED GOERNER

The Clinical Application of the Rorschach Test. By Ruth Bochner, M.A., Florence Halpern, M.A., and Karl M. Bowman, M.D. Octavo of 216 pages. New York, Grune & Stratton, 1942. Cloth, \$3.00.

About twenty years ago a psychiatrist working with psychotic patients used ink blots as a stimulus to elicit the responses from patients. He soon learned that different types of psychotic patients responded differently to these stimuli. Presently he developed this test and applied it on a wider scale so that he was able to evaluate the personality of the individual by means of this particular test. For a while his work was entirely overlooked. However, five years ago considerable interest was shown in this country by many workers in the field of psychiatry and psychology. The test has a wide application and is employed by many psychiatrists and by practically all psychologists. The test itself consists of ten cards each bearing a particular ink spot, and each card is presented to the patient. The interpretation of the patient's response to the visual stimuli and the meaning that each card conveys to him is utilized by the examiner in evaluating the personality of the individual.

The book is written by two psychologists working in the Bellevue Psychiatric Hospital. They give a clear and concise description of the test, its method of interpretation, and its general application. It is

[Continued on page 572]

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ANNUAL MEETING of the Medical Society of the State of New York

Members of the House of Delegates will do well to make reservations at the Hotel Statler in Buffalo now for May 3 and 4, 1943. This applies also to those planning to attend the scientific sessions beginning on Tuesday May 4 and extending through Thursday May 6, 1943. Address the Manager of the Hotel Statler, Buffalo.

Peter Irving, M.D.
Secretary

[Continued from page 570]

a useful book and one that will be helpful to the average psychiatrist.

IRVING J. SANDS

Synopsis of *Materia Medica, Toxicology, and Pharmacology for Students and Practitioners of Medicine*. By Forrest R. Davison, B.A. Second edition. Duodecimo of 695 pages, illustrated. St. Louis, C. V. Mosby Company, 1942. Cloth, \$5.75.

In the second edition of this convenient-sized book, the section on sulfonamide drugs has been enlarged, and the revision has been made to conform to the *United States Pharmacopoeia XII*. Drugs are classified mainly as they affect the different systems of the body, as, for example, those acting on the skin or gastrointestinal tract or central or peripheral nervous systems. Under the latter heading, division is made into the autonomic, parasympathetic and sympathetic systems, and parasympathetic ganglia, and the cerebrospinal system, motor and sensory portions. Drugs as they affect each portion are described, in accordance with the general plan of the book.

Adequate sections on vitamins, hormones, serums, vaccines, and biologicals are included. Many references are furnished, and much sound information is presented in a compact form.

W. E. McCOLLOM

Group Differences in Urban Fertility. A Study Derived from the National Health Survey. By Clyde V. Kiser. Octavo of 284 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$2.50.

This book is written with striking simplicity and is supplemented by well-compiled data. Fertility rates are analyzed in successive chapters according to nativity, color, area, size of community, occupational status of the head of the family, educational attainments of the wife, family income, patterns of class differences in mental fertility, and ratios of pregnancy, respectively. Though each of the chapters is summarized, the author sees fit to culminate his work by restating his most significant results. None of these is entirely new. However, many heretofore inadequate investigations are enlarged upon and clarified by the author.

Statistical tables and charts used are detailed and instructive. The book is well authenticated by an unusually complete and extensive bibliography of the relevant literature. The volume is an excellent treatise, recommended for those interested in the problem of fertility.

S. L. SIEGLER

The Medical Clinics of North America. Volume 26, No. 5. September, 1942. Octavo. Illustrated. Philadelphia, W. B. Saunders Company, 1942. Published Bi-Monthly (six numbers a year). Cloth, \$16 net; Paper, \$12 net.

These clinics, which come from Boston, are especially good. Particularly commendable are the articles on anemia (Strauss), peripheral vascular diseases (Homans), asthma (Rackemann), arthritis (Bauer), and vitamins (Guy and Ross).

ANDREW M. BABEY

Eat What You Want! A Sensible Guide to Good Health Through Good Eating. By W. W. Bauer, M.D., and Florence M. Bauer. Octavo of 263 pages. New York, Greenberg Publisher, 1942. Cloth, \$2.00.

The main objective of this book is to convince people that good nutrition can be attained without suffering the stigma of dieting. The choice of meals

can be arranged so that it is possible to enjoy good food, good service, and good taste.

The book is written for popular lay consumption. It is light, . . . taking the reader step by step . . . of the daily food requirements. There are 25 sample menus.

MORRIS ANT

Public Health and Preventive Medicine. By Morton C. Kahn, M.A. Volumes One and Two. (Oxford Medical Outline Series). Octavo of 534 pages. New York, Oxford University Press, 1942. Cloth, \$4.00 per set.

This book is prepared in two volumes for convenient handling. It is not a textbook in the usual sense. Rather, it is complementary to the more elaborate books on this topic in that the subject matter is outlined in pithy categorical style.

Transmissible diseases take up 90 per cent of the space. The discussion of each disease is arranged by salient features under which each point is elaborated in numbered order. This arrangement is excellent for the use of students and may make the book handy for practitioners who, in emergency, want facts presented in brief, orderly fashion.

Topics on public health administration, a minor part of the book, are discussed in similar style. This form of presentation, however, is not quite so applicable to those subjects that may have a debatable nature. For this purpose, elaborate textbooks are more appropriate.

ALFRED E. SHIPLEY

Handbook of Hygiene for Students and Practitioners of Medicine. By Joseph W. Bigger, M.D. Second edition. Octavo of 414 pages. Baltimore, Williams & Wilkins Company, 1941. Cloth, \$4.50.

This volume is well arranged and prepared. The subject matter is complete in that it contains information not only for the medical student but also for the general practitioner. Furthermore, this handbook can also be used to great advantage by nurses, social workers and teachers in the public schools. The author has prepared the book in such a way that it is both interesting and complete and at the same time easily understood by the nonmedical person. He stresses the need of health education and makes every effort to impress the reader, and especially the physician, with the part the doctor must play in cooperating with local and national health departments and with the Public Health Service. As a complete and ready reference book this volume deserves a place on the doctor's bookshelf, and indeed in every library, both medical and lay.

SAMUEL ZWERLING

War Medicine: A Symposium. Editor, Winfield S. Pugh, M.D. Octavo of 565 pages, illustrated. New York, Philosophical Library, 1942. Cloth, \$7.50.

This timely volume is well written and is carefully edited and presented from the typographical viewpoint.

The greater part of the volume discusses surgical procedures. The relation of the nonsurgical is presented to show the importance of cooperation between the physician and the surgeon in the care of wounded and sick soldiers.

The need of speed and accuracy to facilitate the transfer of the wounded soldier is stressed. The necessity for immediate and speedy attention to shock and wounds is contrasted with the more leisurely way of civilian practice. Each chapter is devoted to regional injuries, and the minute sur-

[Continued on page 574]

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[Continued from page 573]

gical care in such cases is explained. The need of cooperation on the part of each of the team is emphasized. The text is concise, accurate, understandable, and well presented. It is a useful book, not only for those who may become military surgeons, but also for the civilian doctor.

HENRY M. MOSES

Essentials of General Anaesthesia with Special Reference to Dentistry. by R. R. Macintosh, M.D., and Freda B. Pratt Bannister, M.D. Second edition. Octavo of 334 pages, illustrated. Oxford, England, Blackwell Scientific Publications, Ltd., 1941. Cloth, 25 shillings.

This book starts with an excellent chapter on the theory of anesthesia and the important topic of the physiology of respiration. It then continues with chapters on all the general anesthetics used in surgery, with special emphasis on dental surgery.

Not only is the subject handled carefully and conservatively but also good practical advice is given in a manner which makes one realize that the authors have had a great deal of actual experience. In fact, throughout the book, one is brought to the conclusion that the subject is no more important than the patient. Thus, for instance, there are such excellent chapters as preparation of the patient, premedication of the patient, choice of anesthetic for the patient, the more difficult patient, the handling of children, errors in anesthesia, and what to do in emergencies. In addition, the book is carefully arranged, clearly and logically outlined, and freely and beautifully illustrated with many plates in color, which makes it easy as well as instructive to read.

It is indeed a most commendable storehouse of ready reference for every surgeon, as well as for the dental surgeon, both in private and hospital practice.

OSCAR RODIN

Night of Flame. By Dyson Carter. Octavo of 337 pages. New York, Reynal & Hitchcock, 1942. Cloth, \$2.50.

This is another novel with hospital life as the background for the lives and loves of the dramatic personae. The title comes from the climax of the story, the destruction of the hospital by fire, with loss of life among the patients and the personnel. With a recent catastrophe in a night club still fresh in our memory, it becomes more distressing to learn of equal possibilities in a hospital.

The author, a chemical engineer, has not neglected to let his readers go behind the scenes of the sex life of a hospital, with at least one of the situations being of interest to a Havelock Ellis. We are tempted to paraphrase the introduction of a radio comedian in the observation that "doctors and nurses are the craziest people—in novels."

JOSEPH RAPHAEL

Manual of Clinical Chemistry. By Miriam Reiner, M.Sc. Duodecimo of 296 pages, illustrated. New York, Interscience Publishers, Inc., 1941. Cloth, \$3.00.

This manual may be used as a handy reference in the laboratory. It contains all necessary tests that may be used routinely in a hospital ward and contains a chapter on chemical tests of vitamins A, B₁, and C.

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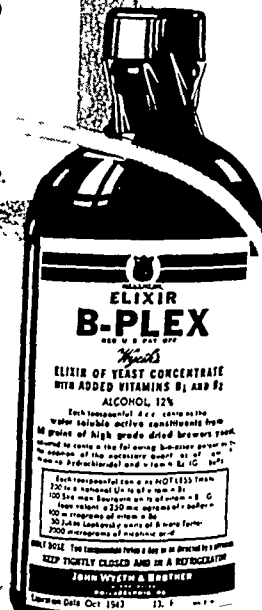
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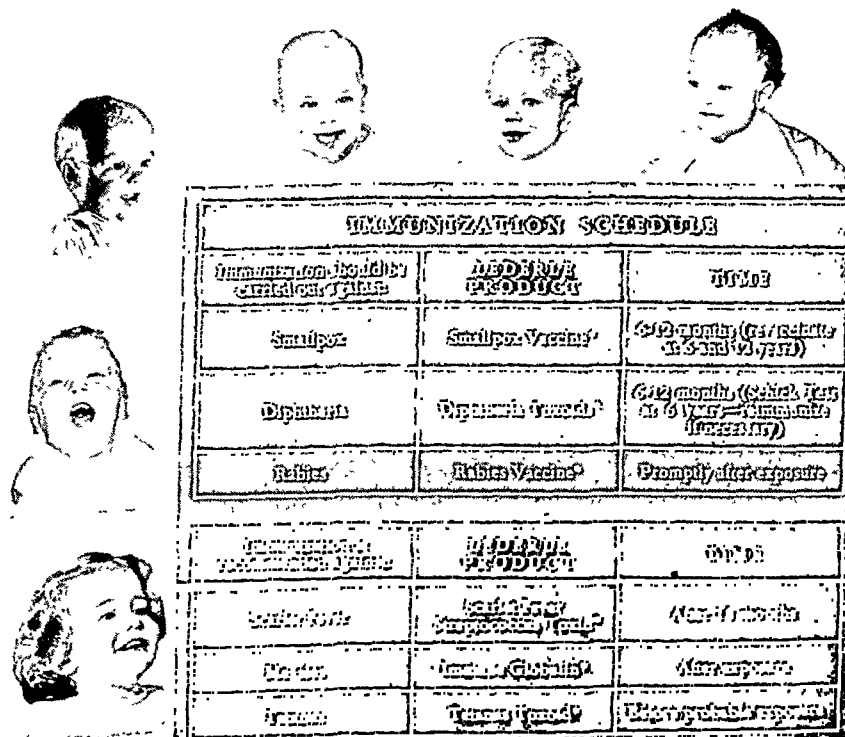
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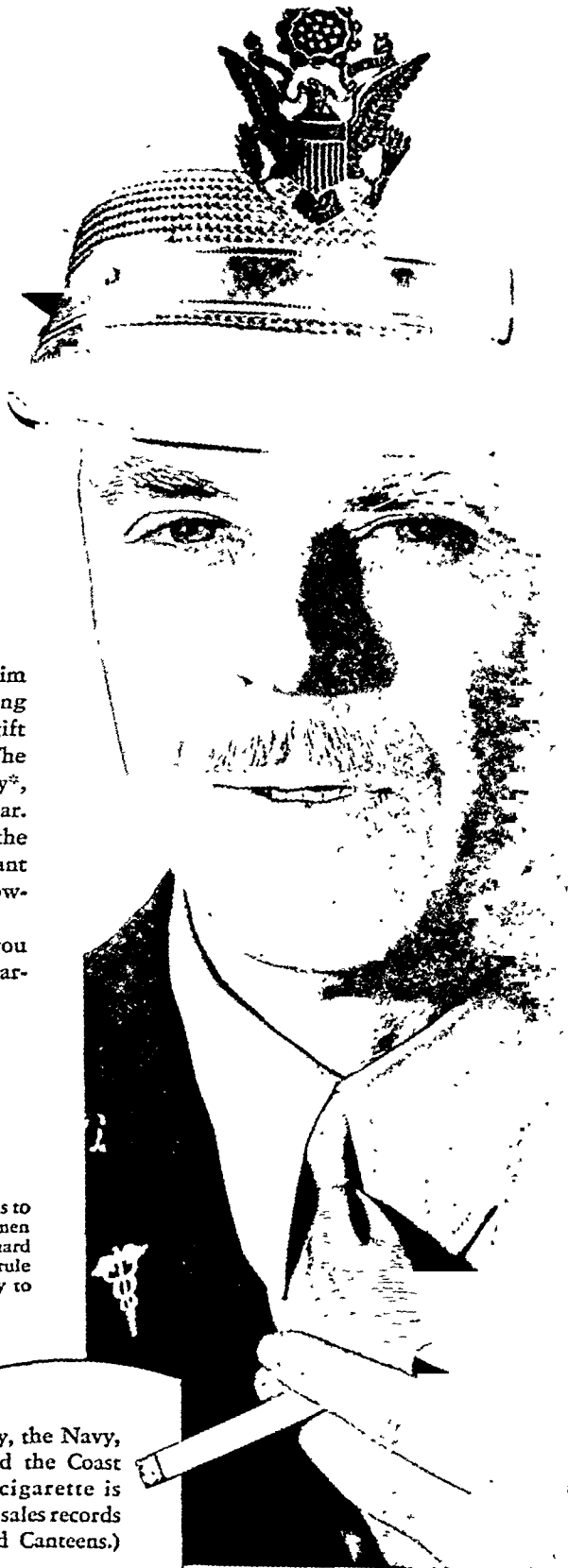
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VOLUME 43

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NUMBER 7

Published twice a month by the MEDICAL SOCIETY OF THE STATE OF NEW YORK. Publication Office: 20TH AND NORTHAMPTON STS., EASTON, PA. Editorial and Circulation Office: 292 MADISON AVE., NEW YORK, N. Y. Change of Address: NOTICE SHOULD STATE WHETHER OR NOT CHANGE IS PERMANENT AND SHOULD INCLUDE THE OLD ADDRESS. Fifty cents per copy—\$5.00 per year. Entered as second-class matter March 13, 1939, at the Post Office at Easton, Pa., under the Act of August 24, 1912.

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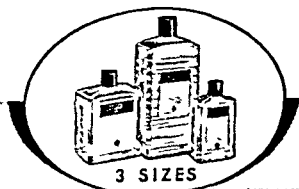
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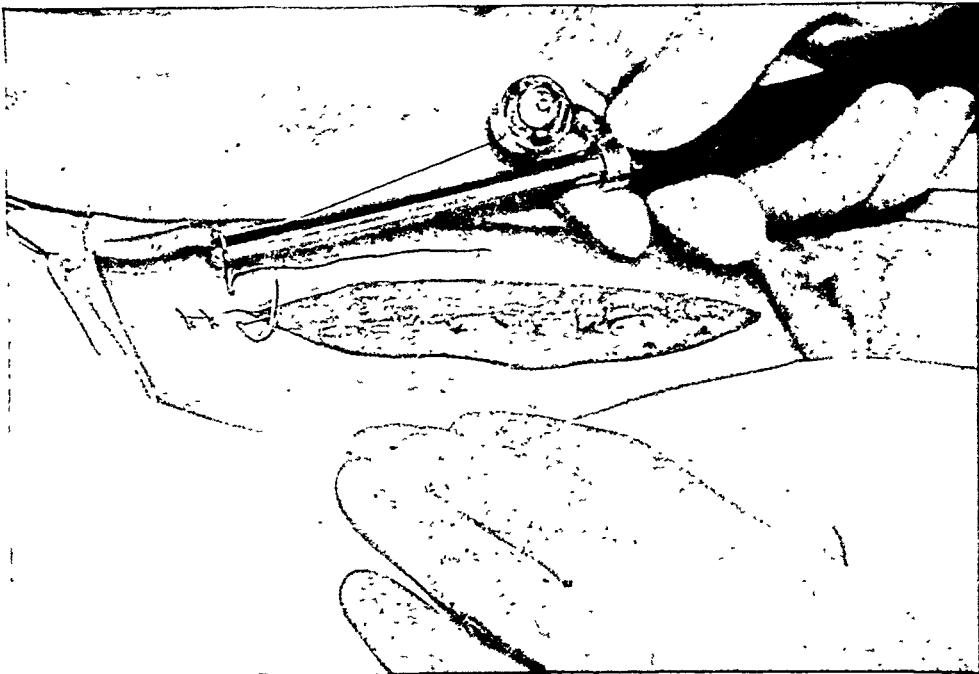
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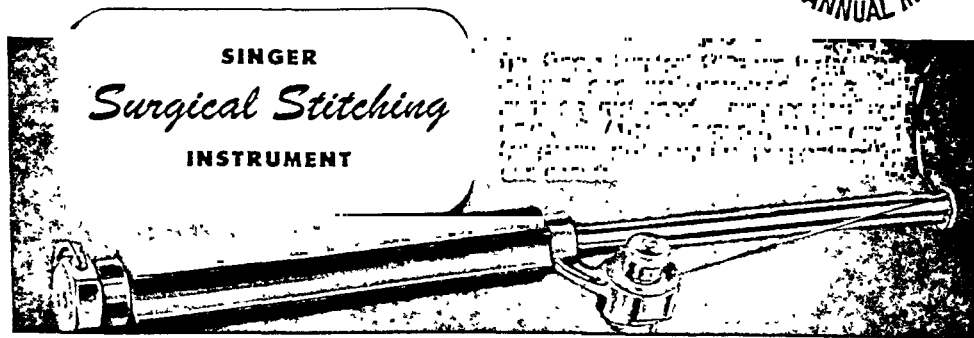
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² Zener, F. B.: Northwest Med., 36:7, 1937, and Amer. Jl. Surg., 41 416, 1939
³ Peterson, P.: Amer. Jl. Obst. & Gyn., 35:1004, 1936

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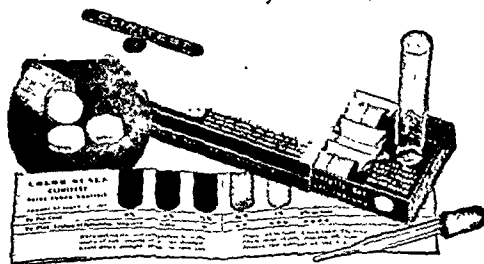
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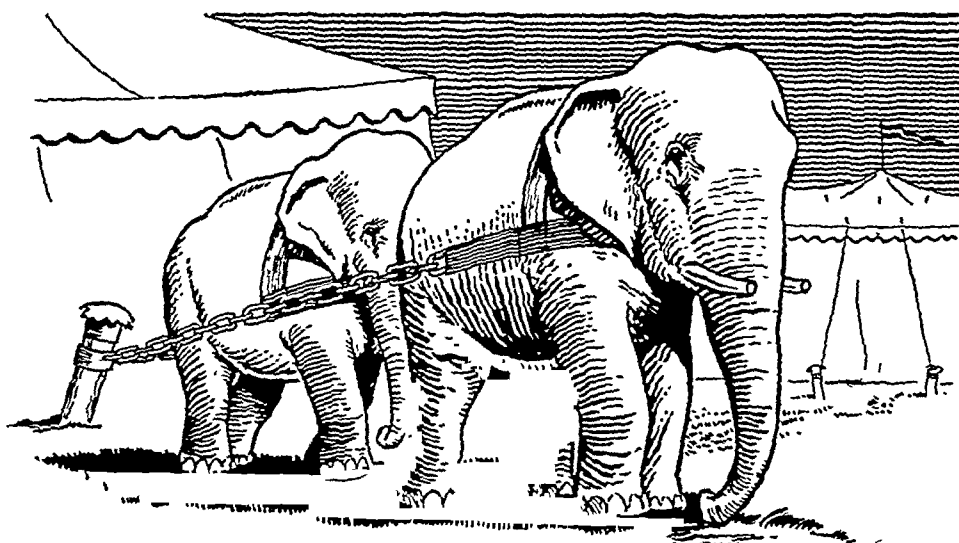
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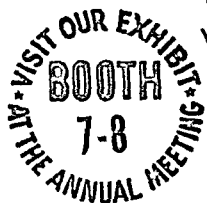


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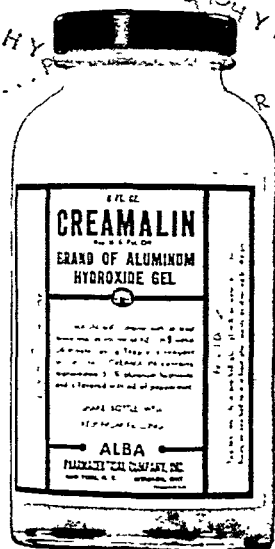
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Camel Cigarettes	579
S. H. Camp Company	602
Carbisulphoil Company	607
Cavendish Pharmaceutical Corp.	590
Ciba Pharmaceutical Products, Inc	593
Clergy Cross Emblem Co	693
Doak Company, Inc	596
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H. E. Dubin Laboratories	693
Effervescent Products, Inc	592
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Holland-Rantos Co	604
Horhek's Malted Milk	683
Hotel Statler	2nd Cover
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International Vitamin Corp	585
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Latimer Laboratory	584
Lederle Laboratories, Inc	578
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Loeser Laboratory, Inc	596
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Mead Johnson & Company	4th Cover
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Meick & Company, Inc	677
W. S. Meirell Company	597
Philip Morris & Co. Ltd	685
Mutual Pharmacal Company	586
National Discount & Audit Co	701
National Oil Products Company	598
Nutrition Research Laboratories	582-583
Ortho Products, Inc	704
Paine Hall	703
Parke, Davis & Company	594
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Schering Corporation	587
G. D. Searle & Company	695
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Smith, Kline & French Laboratories	603
Spencer Corset Company	691
E. R. Squibb & Sons	600
Stone Tarlow Co. Inc	698
Charles B. Towns Hospital	699
U. S. Vitamin Corp	673
Wander Company	697
Harry F. Wanvig	596
West Hill	700
White Laboratories	595
Winthrop Chemical Co., Inc	689
John Wyeth & Bro., Inc	3rd Cover
Yorkshire Indemnity	606
Zemmer Company	703

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"The ultimate cause of peptic ulcer is unknown..."

Winkelstein, Asher: Rev. Gast.

May-June, 1942, p. 174

THE TREATMENT *Clear*

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Emery, E. S. Jr., and Rutherford

R. B.: New Eng. J. Med.

Feb. 8, 1940



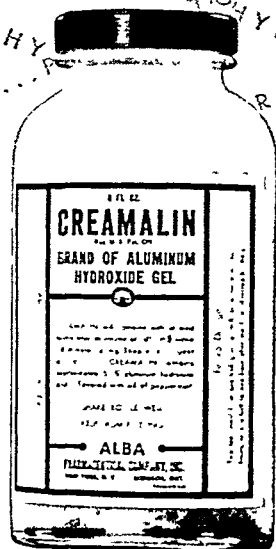
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Potent-Undiluted NATURAL B COMPLEX

One teaspoonful (5cc.) supplies 1.5 mg. thiamine hydrochloride; 1 mg. riboflavin; 12 mg. of a naturally occurring mixture of niacin and niacin amide; 0.75 mg. pyridoxine hydrochloride and 1.4 mg. pantothenic acid.



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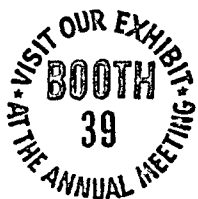
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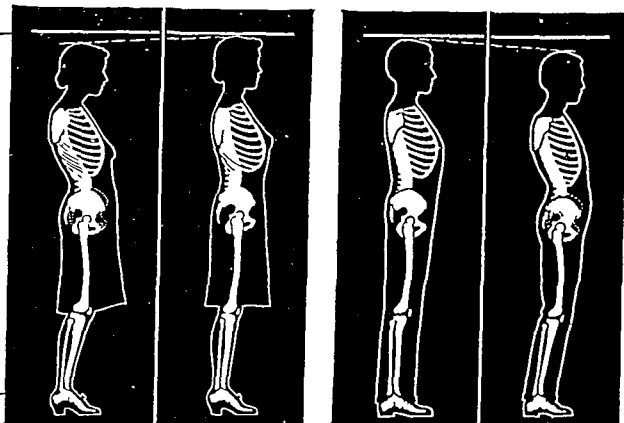
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 MAY 3rd TO 8th



TODAY, more emphasis than ever before is being placed upon *good posture* as an essential factor in our nation's well being. That is why, this year, National Posture Week becomes more far-reaching and significant than at any time since its inception . . . Why, this year, it should be of more than usual interest to the medical profession.

"Fitness for Victory"—slogan of this 5th National Posture Week—will ring like

a battle cry from one end of the country to the other. Press, radio, schools, colleges and civic groups will voice the challenge—"How are you standing up to the extra demands of total war . . . are you *fit* to do *your* share for victory?"

We believe that this message will inspire more men and women to better posture . . . will encourage those suffering from poor body mechanics to seek professional advice. We hope the aims and precepts of

this program will warrant the full approval and support of the medical fraternity this year, as in the past.

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World's largest manufacturer of scientific supports. Offices in New York; Chicago; Windsor, Ontario; London, England.

Book is 3 1/4 inches by 6 1/4 inches. Printed in blue. Profusely illustrated with skeletal diagrams as above.

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Doctors all over America—particularly in industrial plants and army camps—have ordered thousands of this 16-page ethical booklet. They have expressed satisfaction with the way "Blue Prints for Body Balance" clearly explains authentic posture information to the layman in easy-to-read, non-technical language. Prepared by the Samuel Higby Camp Institute for Better Posture, it can be obtained in any quantities you wish by writing the Samuel Higby Camp Institute for Better Posture. Address: Empire State Building, New York City.



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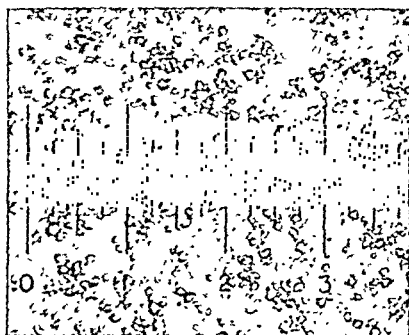
WHY ? Because Pragmasul contains S. K. F.'s new 'Microform'* crystals of sulfathiazole — each approximately 1/1000 the mass of an ordinary commercial crystal.

RESULTS . . (1) Enhanced therapeutic effect. (2) Lessened possibility of irritation. (3) Exceptional smoothness.

Ordinary commercial sulfathiazole crystals.



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(450X) Each small division of the scale = 2 microns

Pragmasul is indicated, both in dermatology and in minor surgery, when pyogenic infection is present or suspected.

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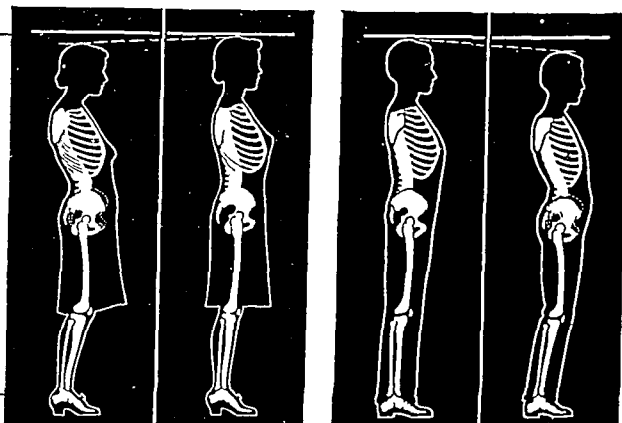
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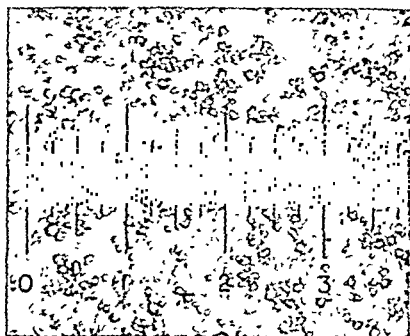
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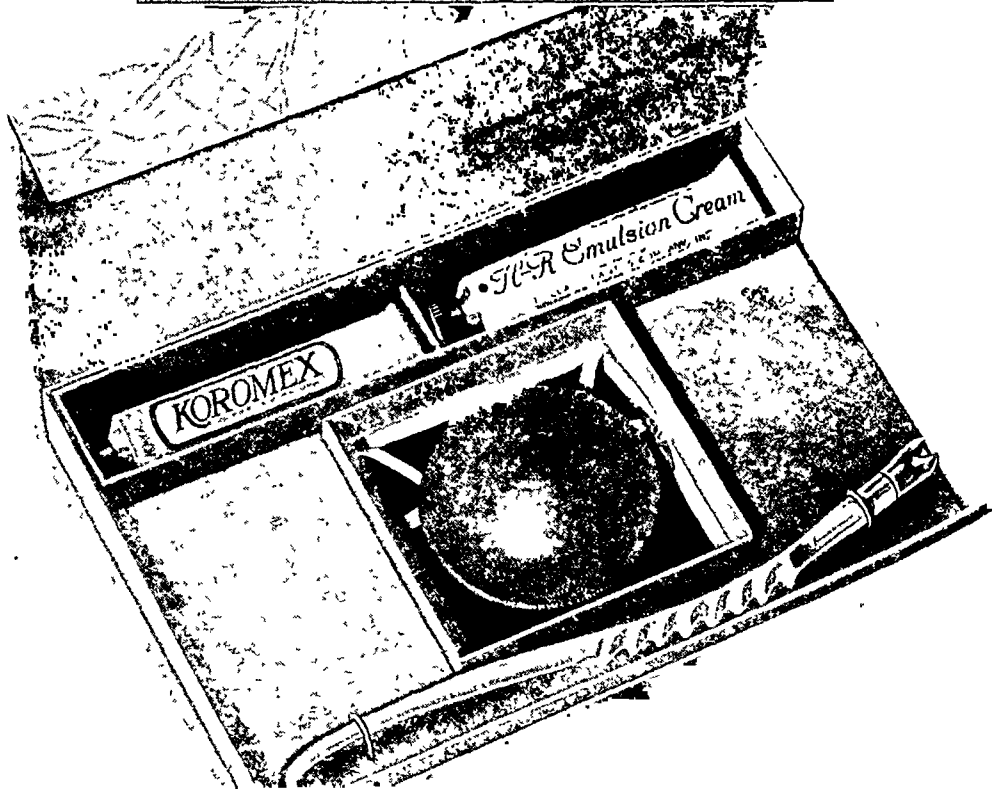
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per capsule—obtained from activated ergosterol (Hebo Process) in a pure, edible vegetable oil, and *per ampul*—activated ergosterol (Hebo Process) in cotton seed oil (Each ampul contains a sufficient amount to permit withdrawal and use of 1 cc)

Supplied—for oral use (on prescription only) one hundred capsules for \$14.40—for injection (a sterile intramuscular solution), twelve ampuls for \$8.00 (each ampul containing a sufficient amount to permit withdrawal and use of 1 cc.)

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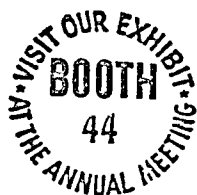
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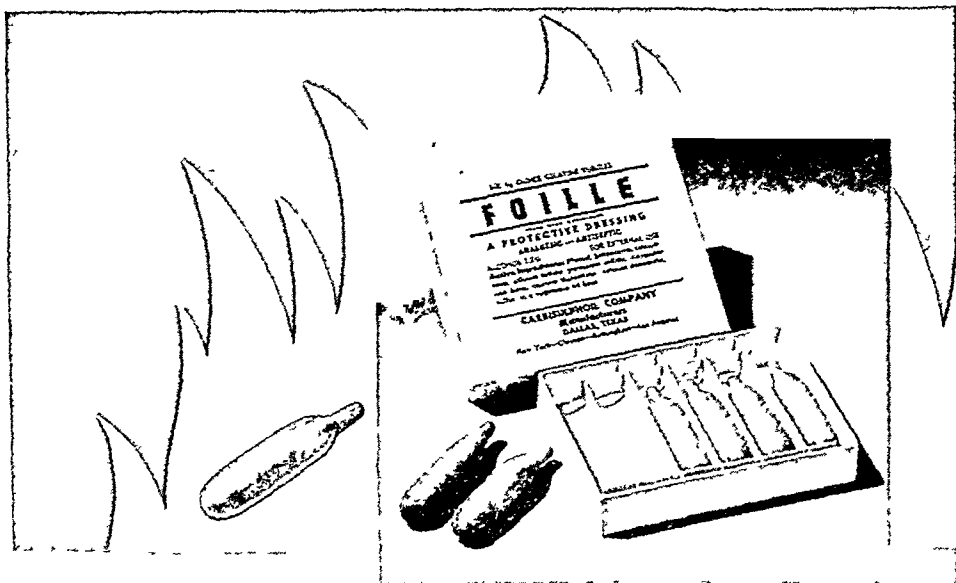
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NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 43

APRIL 1, 1943

NUMBER 7

Editorial

Annual Meeting, 1943

It is said of Aldus, the printer, that he placed over the door of his office a placard: "Talk of nothing but business, and despatch that business quickly." This will be the spirit of the Annual Meeting of the Medical Society of the State of New York at Buffalo, May 3-6, 1943.

War medicine and surgery, cumulative experience in wartime practice, new methods, recent researches, demonstrations of various kinds will high-light the meeting. The convention committee and the exhibitors have been continuously at work since the first of the year, planning with all the dreadful virtue of industry in their hearts, toiling by day and far into the night, limited only by the kerosene rationing restrictions, for one of the most exceptional meetings the Society has ever had.

The general session on Tuesday, May 4, will open with "British-American Experiences in Civil Defense," by Col. George Baehr, Chief Medical Officer, Office of Civilian Defense, Washington, D.C. This will be followed by "Summary of the Modern Treatment of War Injuries," by Capt. Reynolds Hayden, M.C., U.S.N., Commandant, 3rd Naval District, New York. Captain Hayden, recently returned from Pearl Harbor, speaks from personal experience. Papers on "Care of Soft Tissue Injuries," "Continuous Caudal Analgesia in Obstetrics—Demonstration of Catheter Technique for Administration," will follow. These are timely subjects in which everybody should be interested.

A "Symposium on Plasma" will follow on Thursday, May 6, and on Wednesday, May 5, the Section on Public Health, Hygiene, and Sanitation will discuss virus diseases of the central nervous system, tropical diseases—a postwar public health program, and military malaria control. On the same day the section on ophthalmology and otolaryngology will hear epidemic keratoconjunctivitis (shipyard eye) discussed. These are but a few of the topics of vital current interest which you will hear about, to say nothing of the scientific exhibits.

No one knows what the future holds. Next year? The year after? Why worry? Put aside anxiety, take out your calendars, mark the dates May 3-6, Buffalo, *must*. You owe something to the community in which you practice. Your attendance at the state meeting will fulfill part of this obligation by refreshing you and bringing you up to date on matters of vital importance to your community's health. It is true that this year the meeting will be all work and no play. There will be no annual banquet as in previous years; there will be difficulties in transport. But what of it? It will be Spring! It will be Spring in Buffalo—

"Whither resorting from the vernal Heat
Shall Old Acquaintance Old Acquaintance
greet,
Under the Branch that leans above the
Wall
To shed his Blossom over head and feet."



Buy War Bonds and Stamps



"Man is an animal of habit"

Proverb

*...and Petrogalar makes it easy to
establish "habit-time" for bowel movement*

Physicians agree, "Habit Time" is the best corrective measure in treating constipation.

As an aid in establishing "Habit Time" . . . Petrogalar has long been favorably known.

An aqueous suspension of mineral oil, Petrogalar adds unabsorbable fluid in the colon. Brings about comfortable elimination with no straining . . . no discomfort.

Unlike plain mineral oil, Petrogalar supplies moisture . . . retains moisture . . . counteracts excessive dehydration.

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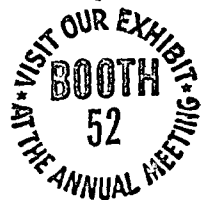
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Conservation of Physicians

Physicians are expendable on the home front as well as on the battlefield. Coronary thrombosis and occlusion, other coronary diseases, angina pectoris, cerebral hemorrhage, arteriosclerosis, cardiovascular renal disease, and chronic nephritis continue to take their unspectacular but inexorable professional toll year after year. These conditions continue to head the list of causes of death among physicians in civilian practice, as we remarked in our February 15 issue. Considered merely as eventual causes of death they are bad enough, but how much do they contribute to impaired efficiency during the years preceding death? Is all of this impairment of function inevitable?¹

During the last half-century the death rate for preventable disease, notably the acute infections, has undergone a pronounced decline, whereas that for the various degenerative diseases has steadily risen. "Longevity marred by an accompaniment of disabling disease," says Piersol,² "...has little to commend it; it is a distinct liability rather than an asset." Stieglitz³ has pointed out that the most important diseases of senescence, such as cardiovascular renal disease, arthritis, diabetes mellitus, and cancer, are best controlled in the two decades preceding old age. If this commences at 60, then 40 is none too early to begin. Physicians will recognize that fact; they will act upon it in the interests of their patients but not in their own interests, apparently. Yet the physician group between the ages of 45 and 65, almost precisely that age group with which something can be done to conserve its own physical and mental efficiency, is right here, now, in the hospitals, in the laboratories, in the foundations, in the doctors' offices, too busy, possibly too indifferent, to act. Sherman's work on diets

is known to them; Minot's work is available; McCay's experiments on rats and their results are available, as Piersol² points out. There is steadily increasing evidence that diet plays an important part in human longevity and in delaying or preventing some of the disorders common to senescence. How has this knowledge affected the physicians themselves? Do they pay much attention to the significance of their own discoveries? Apparently not, judging somewhat from the commonest causes of death, somewhat from ordinary observation.

Studies by Ciocco and Altman⁴ on the patient loads carried by physicians, made for the Procurement and Assignment Service and for the War Manpower Commission, show that withdrawals of men below 45 years of age from a population does not have the same effect as withdrawing men above that age. General practitioners under 45 years of age were found to have a patient load 20 to 50 per cent greater than that of other men between 45 and 64 years of age and more than twice as large as that of general practitioners 65 years and older. This study affords at least a suggestion of the efficiency of the two older groups compared with those under 45, and discloses perhaps the origin of some of the principal causes of death at or near the end of the sixth decade, aided and abetted by faulty diet, insufficient rest, and unremitting pressure.

Surely physicians have something in common with shoemakers' children, the hen who starved on a dung heap, and the proverbially ductile but hydrophobic horse.

1 New York State J Med 43: 219 (Feb 1) 1943

2 Piersol, G M Arch Ophth 29: 1 (Jan.) 1943

3 Stieglitz, E J New England J Med 225: 247 (1941).

4 J A M A 121: 506 (Feb 13) 1943

Army's 1943 Recruiting Program Will Require 6,900 Physicians*

The 1943 recruiting program of the Surgeon General of the Army calls for the commissioning of 6,900 physicians and approximately 3,000 hospital interns and residents, it is reported in *The Journal of the American Medical Association* for March 13 in an

* This article is reprinted here in full at the request of the A.M.A.

outline of the new procedure of processing physicians, dentists, and veterinarians for the Army. The program also calls for the commissioning of 4,800 dentists and 900 veterinarians.

Physicians will be procured from the following twenty states and the District of Columbia: California, Colorado, Connecticut, Illinois, Iowa, Mary-

Medicine and the State

Disraeli said that it was much easier to be critical than to be correct. To be correct, readily accessible information comes in handy. We are therefore prompted to place before our members certain facts concerning the participation of the State of New York in medical, health, and welfare services. In these services the state, voluntary agencies, and the medical profession conduct a *cooperative enterprise* which, under the name of state medicine, has, at times, been subject to some controversy and criticism. In order that both the critics and the apostles of exactitude may be equally well informed, we list the types of services offered to the citizens of the state from *birth to death* as compiled by the Executive Officer of the Medical Society of the State of New York.

Premarital examination of prospective fathers and mothers

Maternal welfare

(a) Treatment for syphilis

(b) Obstetrical care

(c) Postpartum care

Ophthalmia neonatorum

Well baby clinics

Immunization services of various kinds

Care and rehabilitation for poliomyelitis

School medical services

(a) Physical examination

(b) Health education

(c) Specific medical services where needed

Special schools for handicapped children of various kinds

Dental clinics in schools

Lunches, milk, and transportation for school children

Industrial hygiene supervision and rehabilitation

Workmen's compensation insurance

Medical care of the indigent

Old age assistance

Institutions providing care under state auspices

General hospitals, their clinics and wards

Mental hospitals

Tuberculosis hospitals

Cardiac institutions

Veterans hospital

Agencies supervising or assisting in provision of state care

State Health Department

State Welfare Department

Local welfare and health departments

State Education Department

State Department of Labor

State Department of Insurance

Public Health Nurses' Association

State Medical Society, local branches and county societies

Tuberculosis Association

Cancer Committee

Hospital expense insurance plans

Medical expense insurance plans

Industrial mutual aid plans

Diseases for which the state has assumed full or partial responsibility

Poliomyelitis

Tuberculosis

Blindness

Mental and nervous diseases

Cancer

Deafness

Cardiac disease

All these activities have become so commonplace in the lives of most of us that they are accepted almost as a matter of course. The private practice of medicine continues, as always, *paripassu*; with, to date, little ascertainable recession in the volume of work and even a possible increase because of the vast educational value to the public of these cooperative enterprises. Few men in this state, we believe, would favor or even countenance a restriction of these services; many think that they could be better integrated; some believe that they should be broadened to provide increased service. "We are fortunate," said Dr. George W. Cottis, in 1942, "in this respect: In the protection of public health, in the elimination of disease, in the spreading of medical knowledge, and in the raising of the standards of medical care we have for generations anticipated the demands which are now being so widely publicized. We have led the procession and need not and must not now become followers. We have the knowledge necessary to meet purely medical demands, but leadership requires more than knowledge. It demands an alert understanding of changing conditions and of sociological movements. We must survey the whole field of human needs and set our objectives accordingly. We must be willing to discard *outworn traditions* while steadfastly retaining the ideals and high standards of service which can never be outworn."

Conservation of Physicians

Physicians are expendable on the home front as well as on the battlefield. Coronary thrombosis and occlusion, other coronary diseases, angina pectoris, cerebral hemorrhage, arteriosclerosis, cardiovascular renal disease, and chronic nephritis continue to take their unspectacular but inexorable professional toll year after year. These conditions continue to head the list of causes of death among physicians in civilian practice, as we remarked in our February 15 issue. Considered merely as eventual causes of death they are bad enough, but how much do they contribute to impaired efficiency during the years preceding death? Is all of this impairment of function inevitable?¹

During the last half-century the death rate for preventable disease, notably the acute infections, has undergone a pronounced decline, whereas that for the various degenerative diseases has steadily risen. "Longevity marred by an accompaniment of disabling disease," says Piersol,² "... has little to commend it; it is a distinct liability rather than an asset." Stieglitz³ has pointed out that the most important diseases of senescence, such as cardiovascular renal disease, arthritis, diabetes mellitus, and cancer, are best controlled in the two decades preceding old age. If this commences at 60, then 40 is none too early to begin. Physicians will recognize that fact; they will act upon it in the interests of their patients but not in their own interests, apparently. Yet the physician group between the ages of 45 and 65, almost precisely that age group with which something can be done to conserve its own physical and mental efficiency, is right here, now, in the hospitals, in the laboratories, in the foundations, in the doctors' offices, too busy, possibly too indifferent, to act. Sherman's work on diets

is known to them; Minot's work is available; McCay's experiments on rats and their results are available, as Piersol² points out. There is steadily increasing evidence that diet plays an important part in human longevity and in delaying or preventing some of the disorders common to senescence. How has this knowledge affected the physicians themselves? Do they pay much attention to the significance of their own discoveries? Apparently not, judging somewhat from the commonest causes of death, somewhat from ordinary observation.

Studies by Ciocco and Altman⁴ on the patient loads carried by physicians, made for the Procurement and Assignment Service and for the War Manpower Commission, show that withdrawals of men below 45 years of age from a population does not have the same effect as withdrawing men above that age. General practitioners under 45 years of age were found to have a patient load 20 to 50 per cent greater than that of other men between 45 and 64 years of age and more than twice as large as that of general practitioners 65 years and older. This study affords at least a suggestion of the efficiency of the two older groups compared with those under 45, and discloses perhaps the origin of some of the principal causes of death at or near the end of the sixth decade, aided and abetted by faulty diet, insufficient rest, and unrelenting pressure.

Surely physicians have something in common with shoemakers' children, the hen who starved on a dung heap, and the proverbially ductile but hydrophobic horse.

1 New York State J. Med. 43: 219 (Feb 1) 1943

2 Piersol, G. M. Arch. Ophth. 29: 1 (Jan.) 1943

3 Stieglitz, E. J. New England J. Med. 225: 247 (1941).

4 J.A.M.A. 121: 505 (Feb 13) 1943.

Army's 1943 Recruiting Program Will Require 6,900 Physicians*

The 1943 recruiting program of the Surgeon General of the Army calls for the commissioning of 6,900 physicians and approximately 3,000 hospital interns and residents, it is reported in *The Journal of the American Medical Association* for March 13 in an

* This article is reprinted here in full at the request of the A.M.A.

outline of the new procedure of processing physicians, dentists, and veterinarians for the Army. The program also calls for the commissioning of 4,800 dentists and 900 veterinarians.

Physicians will be procured from the following twenty states and the District of Columbia: California, Colorado, Connecticut, Illinois, Iowa, Mary-

land, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Vermont, and Wisconsin.

The following states have already contributed more physicians to the armed forces than the sum of their 1942 and 1943 quotas and will not be called on to furnish any more physicians, except interns and residents and except special cases for specific position vacancies, during 1943: Alabama, Arizona, Delaware, Georgia, Idaho, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, Tennessee, Texas, West Virginia, and Wyoming.

It is stated that at present there will be no procurement of physicians, except interns and residents and in special cases for specific position vacancies, in those states not listed above. There will be no procurement of dentists, except special cases for specific position vacancies, in the following sixteen states: Alabama, Arizona, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

At the present time there are no restrictions on the recruiting of veterinarians.

In the instructions issued by the Army it is pointed out that the Surgeon General has discontinued all medical officer recruiting boards and that under the new procurement program no physician, dentist, or veterinarian will be commissioned in the armed forces of the United States until he has been declared "available" by the Procurement and Assignment Service of the War Manpower Commission.

In each state the Procurement and Assignment Service has set up three state chairmen: medical, dental, and veterinary. Each of these prepares a monthly quota list of physicians, dentists, and veterinarians who are apparently suitable and who are available, for commissioning in the Army of the United States. This list is submitted to the central office of the Procurement and Assignment Service which sends a communication inviting such individuals to apply for service with the armed forces.

On the reply card enclosed with the invitation the individual states his preference for the Army, Navy, or Medical Department of the Air Forces. These reply cards are sent by the potential applicants to the state chairmen of the Procurement and Assignment Service who in turn submit lists of such potential applicants to the Officer Procurement Service of the Army.

On receipt of such lists the officer procurement district office contacts the potential applicant and arranges for an interview regarding a commission.

Applicants will be requested by the officer procurement district office to complete all papers and take all steps required of them within fourteen days of the date of such request. If this is not complied with, a report thereon will be transmitted by the officer procurement district office to the state chairman of the Procurement and Assignment Service.

The decision as to the grade and appointment to be recommended for each candidate rests with the Surgeon General, not with the Officer Procurement Service.

Correspondence

Orthopaedic Surgery and Radiology

To the Members of the Sections of Orthopaedic Surgery and Radiology:

A joint session has been arranged for Wednesday, May 5. It is to be a "Quiz Program" to "stump the experts," using case histories and x-ray films showing interesting and instructive bone and joint pathology.

Drs. H. P. Doub, director of the department of radiology, Henry Ford Hospital, and Raymond W. Lewis, director of the department of radiology, Hospital for Special Surgery, have agreed to act as the experts.

We are asking that the members of these sections contribute to the success of this meeting by sending in suitable cases covering the field of bone and joint pathology. All data pertaining to the diagnosis

should be presented, briefly, together with appropriate x-ray films.

We would like to have this material in advance so that it can be classified and correlated. All of it will be returned promptly. Be sure to identify your material carefully. However, it may be presented in person if you so desire.

This program can be very interesting and worthwhile. Please help make this a successful session by contributing at least one case report.

Very truly yours,

LESLIE R. LINGEMAN, M.D.
Acting Chairman, Section on Radiology

March 6, 1943

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Very truly yours,

LESLIE R. LINGEMAN, M.D.
Acting Chairman, Section on Radiology

March 6, 1943

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House of Delegates—Reference Committees

Report of:

Credentials

Peter Irving, *Chairman*, New York
Charles F. McCarty, Kings
Edward C. Podvin, Bronx
Christian W. Schmidt, Schuyler
Robert C. Simpson, Montgomery

President

David W. Beard, *Chairman*, Schoharie
J. Stanley Kenney, New York
Philip I. Nash, Kings
Charles A. Prudhon, Jefferson
John E. Wattenberg, Cortland

Council—Part I

Postgraduate Education
Albert F. R. Andresen, *Chairman*, Kings
Conrad Berens, New York
Leon M. Kysor, Hornell
Lyman C. Lewis, Allegany
Byron G. Shults, Herkimer

Council—Part II

Public Health Matters
G. Scott Towne, *Chairman*, Saratoga
Albert A. Cinelli, New York
Edward P. Flood, Bronx
Morris Maslon, Warren
Herbert E. Wells, Erie

Council—Part III

School Health Program
W. Guernsey Frey, Jr., *Chairman*, Queens
Joseph H. Cornell, Schenectady
Louis A. Friedman, Bronx
Walter G. Hayward, Chautauqua
Ralph Sheldon, Wayne

Council—Part IV

Publications and Medical Publicity
Andrew A. Eggston, *Chairman*, Westchester
Charles A. Anderson, Kings
Albert A. Gartner, Erie
Alfred M. Hellman, New York
Joseph P. Henry, Monroe

Council—Part V

Medical Expense Indemnity Insurance
Harry S. Bull, *Chairman*, Cayuga
Robert F. Barber, Kings
John B. Lauricella, New York
Andrew Sloan, Oneida
Nelson W. Strohman, Erie

Council—Part VI

Medical Relief
William B. Rawls, *Chairman*, New York
Edgar O. Boggs, Lewis
Joseph A. Geis, Essex
Abraham Koplowitz, Kings
Guy S. Philbrick, Niagara

Council—Part VII

Legislation
Walter F. Anderton, *Chairman*, New York
John J. Buettner, Onondaga
Eugene H. Coon, Nassau
B. Wallace Hamilton, New York
Harry W. Miller, Putnam

Council—Part VIII

War Participation
Frederic W. Holcomb, *Chairman*, Ulster
Kenneth F. Bott, Greene
Emil Koffler, Bronx
Erich H. Restin, Westchester

Council—Part VIII—Continued
Thomas B. Wood, Kings

Council—Part IX

Workmen's Compensation
Carlton E. Wertz, *Chairman*, Erie
Roy B. Henline, New York
Charles S. Lakeman, Monroe
Milton S. Lloyd, Richmond
George C. Vogt, Broome

Council—Part X

Public Relations and Economics
Homer N. Nelms, *Chairman*, Albany
David Corcoran, Suffolk
Edwin A. Griffin, Kings
William Klein, Bronx
Henry S. Martin, Wyoming

Council—Part XI

Status of Foreign Physicians
Leo F. Simpson, *Chairman*, Monroe
Stephen H. Curtis, Rensselaer
Maurice J. Dattelbaum, Kings
Joseph C. O'Gorman, Erie
Beverly C. Smith, New York

Council—Part XII

Miscellaneous
Stephen R. Monteith, *Chairman*, Rockland
James S. Lyons, Albany
Peter M. Murray, New York
Theodore W. Neumann, Orange
Joseph Wrana, Queens

Council—Part XIII

Malpractice Defense and Insurance
Legal Counsel
Moses H. Krakow, *Chairman*, Bronx
Samuel E. Appel, Dutchess
Benjamin M. Bernstein, Kings
John Dugan, Orleans
Denver M. Vickers, Washington

Secretary, Censors, and District Branches

Scott L. Smith, *Chairman*, Dutchess
William G. Cooper, St. Lawrence
Daniel A. McAteer, Kings
Madge C. L. McGuinness, New York
Clifford F. Leet, Chemung

Treasurer and Trustees

J. Lewis Amster, *Chairman*, Bronx
Corbet S. Johnson, Tioga
Leo P. Larkin, Tompkins
Archibald K. Benedict, Chenango
Ezra A. Wolff, Queens

New Business A

John J. Masterson, *Chairman*, Kings
John L. Edwards, Columbia
Dan Mellen, Oneida
Leo F. Schiff, Clinton
John L. Sengstack, Suffolk

New Business B

Albert G. Swift, *Chairman*, Onondaga
Thomas M. D'Angelo, Queens
Nathan Ratnoff, New York
Charles C. Trembley, Franklin
Louis A. Van Kleeck, Nassau

New Business C

John D. Carroll, *Chairman*, Rensselaer
Arthur F. Heyl, Westchester
Harry I. Johnston, Broome
John F. Kelley, Oneida
Harvey B. Matthews, Kings

Annual Reports

Medical Society of the State of New York

1942-1943

Report of the President

To the House of Delegates; Gentlemen:

A year ago I began my term of office with deep misgivings. I end it with a sense of thankfulness and of pride in my profession. In spite of the rapid and enormous expansion of our Army and Navy, no conscription of doctors has been necessary. Notwithstanding misleading statements by some high authorities, this state has furnished its full share of medical officers. I think that it is safe to say that the vast majority of physicians in civilian practice today are men who are not available either because of age or physical disabilities. Also it is quite apparent that those of us who are left to care for the civilian population are not shirking hard work. The work of the men who have so unselfishly given their time to the examination of draftees has received little public recognition.

The year has brought all the tribulations which we anticipated and many more which we did not foresee. So many and so varied have been the activities of this Society that I cannot discuss them in detail lest this report be expanded into a volume instead of being covered in the space of a page or two. You will have for your consideration the reports of the many committees who have carried on this work and I shall therefore content myself with the briefest mention of them. The report of the Treasurer will show our loss in income from dues resulting from the enlistment of our members in the armed forces. In spite of this loss in revenue the Society has expanded its activities.

Our office force under the able management of Dr. Irving has rendered great assistance to Procurement and Assignment. The routine work of the Society has been handled smoothly and efficiently. A special committee under the chairmanship of Dr. F. Leslie Sullivan has made an extensive study of the problem of alien physicians and the report of this committee deserves your most careful consideration.

In order to meet wartime needs of medical education Dr. Mitchell and his Committee on Public Health and Education have carried on an extensive program in which the ablest men procurable give instruction on a wide variety of subjects. Dr. Mitchell also arranged important and beneficial conferences during the year with the State Department of Education and the State Department of Health.

A year ago this House favored an active campaign to expand medical indemnity insurance, and this instruction has been ably and enthusiastically obeyed. The three voluntary organizations in Buffalo, Utica, and Brooklyn have all been active and the results are most encouraging. Dr. Baucus has spent much time in presenting this matter to

the District Branches and to county medical societies and he is to be commended for his success in arousing interest in this important matter. I cannot take time to comment on the activities of all of the committees of the Council. It must suffice to say that our committees have all shown a tremendous interest in their work and have functioned with the greatest efficiency.

In the many years in which I have attended meetings of the Council I have never seen so little time wasted in futile discussions and never have I seen a greater volume of work accomplished in so little time.

The Board of Trustees has shown its usual ability in handling the financial affairs of the Society and has worked with fine cooperation with the Council Committee on Finance. The reports of these two bodies speak for themselves.

Since the Society took over the management of the JOURNAL, each year has seen progressive improvement not only in its format and general appearance but in the quality of its contents. This year was no exception. The Society owes a debt of gratitude to Drs. Brennan and Winslow and their committees, to Mr. Dwight Anderson, and to Dr. Laurance D. Redway. The report of the Publications and Publicity Committees should constitute a better eulogy of Mr. Anderson and his work as Business Manager of the JOURNAL and as Director of the Bureau of Public Relations than anything that I can say. I am sure that you all agree with me when I say that the Editorial page of the JOURNAL has been raised by Dr. Redway to a standard equaled by few medical journals and excelled by none.

The brevity with which I have referred to these committees and individuals is not a sign of any lack of appreciation but is due to my desire to have more time to speak to you about our immediate and pressing problems.

It is more apparent now than it was when I spoke on these subjects a year ago that we are in a time of social change greater than the world has seen since Capitalism replaced Feudalism. Social revolution has become a commonplace expression. No man can say how far the changes in our social organization will go before the end of the war but no man can doubt the direction of the trend. Furthermore, it makes no difference whether we favor or dislike the trend. As long as this country remains a democracy, the people will decide. The war itself has already produced many changes but the postwar period will see a vast acceleration in the rate of change.

The precedent established since the last war by the vast extension of hospitalization of all men who wore the uniform twenty-five years ago, regardless of whether they were veterans in the proper sense

of the word and regardless of whether their disability resulted from their service, permits us to envisage what will happen when ten or twelve million men have returned to civilian life. The Veterans hospitals will in themselves require the services of a large percentage of the medical profession.

It is probable that an "American Beveridge Plan" is already being drafted and it is more than probable that some such plan will be effective within a very few years. There is no doubt that the people of this country will become more and more insistent on the privilege of good medical care whether or not they are able to pay for it. Our duty is not to oppose change blindly but to recognize what is inevitable and use our whole energy and leadership to make sure that in so far as change involves medical care it shall be change for the better and not for the worse. Because we alone have the knowledge, we must expect and accept patriotically and cheerfully a great responsibility.

Hundreds of committees already are planning postwar reconstruction of industry, finance, and social service, using experts in every field. In all matters pertaining to public health and medical care we should have a preponderant role. Are we prepared to meet this responsibility? My own belief is that we are not. We have been so preoccupied by our fear of socialized medicine and political control that we have not prepared any long-range and comprehensive plan for the reconstruction of our system of medical care to meet the obviously imminent changes in our social order.

If we were today invited to sit in a conference of postwar planners, could we lay a blue print before them and say, "This is the proposal of organized medicine?"

If we are to lead instead of being chained to the chariots of visionary crusaders, we must at once prepare not one but many blue prints to meet every proposal that may be offered. We may have to face anything from completely socialized medicine to compulsory health insurance.

It should be apparent to everyone that the advances in medical science have produced a paradox. Medicine has services to offer, the value of which is so great that the average wage earner cannot afford to buy them. We have made a high standard of medical care possible. Our immediate concern is to make it available.

I recommend that the House of Delegates set up a special committee of carefully chosen, forward-looking members to study this problem and to prepare a definite program to meet the demands of postwar society without lowering the quality of medical care or sacrificing those high ideals which now as always must control our actions and our relations to society.

In conclusion I must express my appreciation of and thanks for the unfailing encouragement and cooperation which I have received from the Council, Trustees, Committeemen, and Officers during a year of strenuous activity.

GEORGE W. COTTIS, M.D., *President*

March 1, 1943

Report of the Secretary

To the House of Delegates; Gentlemen:

Again the administrative work at the Society has had to proceed at a rate faster than in prewar years and with special attention to matters outside the regular activities. Also, there has been an exceptional call for economy. I am happy to report that Council, Committees, all officials, and employees met this need, not only without diminution of the regular work, but with full performance of extra duties.

Membership.—Elected in 1942 were 796 new members; 264 were reinstated. The net increase for the year, as shown below, was 532.

Membership—December 31, 1941.....	17,781	
New Members—1942.....	796	
Reinstated members—1942.....	264	18,841

Deaths.....	214	
Resignations.....	100	
Licenses Revoked.....	3	317
		18,524

Dropped for nonpayment of dues—December 31, 1942....	211
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Total Membership, December 31, 1942.....	18,313
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Honor counties (none of whose members failed of their dues in 1942) include Broome, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Franklin, Genesee, Herkimer, Ontario, Orleans, Putnam, Rockland, St. Lawrence, Saratoga, Schoharie, Schuyler, Seneca, Steuben, Tioga, Tompkins, Washington, and Yates.

Coordination of Activities.—The setup of Council Committees has remained the same, with very few changes since your last meeting. A new Subcommittee on Tuberculosis and Chest Diseases (Dr. Charles D. Post, Syracuse, *chairman*; and Drs. Louis C. Kress, Albany; Nelson W. Strohm, Buffalo) was set up under Dr. Mitchell's Committee on Public Health and Education.

The Subcommittee on Maternal and Child Welfare was replaced by two groups, the one for Maternal Welfare, as before, and that for Child Welfare (Dr. Alexander T. Martin, New York, *chairman*; and Drs. Albert D. Kaiser, Rochester; A. Clement Silverman, Syracuse; Paul W. Beaven, Rochester; Charles A. Gordon, Brooklyn). To this new subcommittee has been assigned the work on the School Health Program which had previously been handled by a subcommittee which disbanded when Dr. E. Christopher Wood, *chairman*, entered service. Regional Chairmen in Pediatrics work with this subcommittee as do the Regional Chairmen in Obstetrics with the Maternal Welfare Subcommittee. It is to be noted that one pediatrician sits on the Maternal Welfare Committee and one obstetrician on the Child Welfare Committee, each being *chairman* of his own committee.

A new Council Committee was set up under your instruction to study the Present and Future Status of Foreign Physicians (Dr. F. Leslie Sullivan, Scotia, *chairman*; and Drs. Howard Fox, New York; David A. Haller, Rochester).

The untimely death of Dr. Augustus J. Hambrook, of Troy, *Chairman* of the Council Committee on Public Relations and Economics, was a great loss. Dr. Herbert H. Bauckus, of that Committee, has

taken over the work in admirable fashion. Dr. Charles M. Allaben, of Binghamton, selected by the Council to fill Dr. Hambrook's term, was placed on that Committee.

Leave of absence as councilor was granted to Dr. E. Christopher Wood, of White Plains, when he went into service. Dr. Ralph T. Todd, of Tarrytown, was selected by the Council to fill out Dr. Wood's term as councilor. He was assigned the job as Chairman of the Subcommittee on Medical Relief under Dr. Bauckus' Committee.

The Workmen's Compensation Bureau, ably managed by Dr. David J. Kaliski as director, has had an ever increasing demand on its services.

I wish to congratulate Mr. Dwight Anderson for the splendid result he has accomplished in reducing the cost of JOURNAL production still further in 1942.

War Participation has called for continuation of aid to Selective Service Pre-Induction Boards of the United States Army in the State and help to the State Chairman, Dr. Joe R. Clemmons, of Procurement and Assignment. Your Secretary was glad to have the opportunity to tour the State with Dr. Clemmons last December, meeting with groups of chairmen of County Society Committees on War Participation. This was beneficial on all sides in clearing up pictures, both present and future, particularly with relation to care of civilian population.

Again it is a pleasure to commend the effective-

ness of the Council and Committees; and to record my own sense of privilege to help in the valuable work of the Society.

New York Office.—The decision to postpone publication of the *Directory* has made it possible to bring the New York office force down to a minimum. In addition, impulses of wartime have made it necessary to replace four of the clerical force. This has made additional demands on the regular employees until new members of the force could learn to do their tasks expeditiously. Both the regular employees and the new members of the office staff have evidenced loyalty and deep interest in carrying on their many duties. All concerned have kept their minds on the need for economy.

Remission of State Assessments has also placed increasing work on the New York office staff, as has the compilation and publication in the JOURNAL of an Honor Roll of members in the armed services and the U.S. Public Health Service. Furthermore, the changes in address of members has thus multiplied heavily.

I wish to record my gratitude to the office force for their loyal and devoted work under the excellent supervision of Miss Dougherty.

Respectfully submitted,
PETER IRVING, M.D., Secretary

March 1, 1943

Report of the Treasurer

To the House of Delegates; Gentlemen:

The financial status of the Society is shown on the following pages by excerpts from the annual report of the auditors, Messrs. J. K. Lasser & Co., for the year 1942.

A few of the items in the report merit special attention. During the year our balance has increased about \$51,655. To this should be added the reserve created for future annual meetings, namely, \$3,307, the credit balances for the 1940 and 1941 meetings. This gives a figure of approximately \$54,900 as the increase in our balance.

This increase results from an appreciation in the market value of our securities of about \$8,800, our income from securities of about \$13,000, and from a large excess of operating income over operating expenses, namely, \$32,943. On examining the operating income and expense statement it will be seen that although the operating income was less by over \$16,000 than that of 1941 (in which year were included the credit balances of the 1940 and 1941 annual meetings totaling \$3,307), the operating expense for 1942 was less by over \$37,000 than that of the previous year. This saving was brought about by rigid economy in the management of the affairs of the Society, by the fact that the *Directory* was not published, and by the increased advertising income of the JOURNAL.

Last year, in this report, after showing a favorable balance of about \$19,300 for the year 1941, I was rather pessimistic about the year 1942. As you see, these fears were not realized. Quite the contrary. But perhaps they will be realized in 1943, as more of our members enter the armed services, and if costs go up. However, the Society is in a strong position financially, and should be able to come through without crippling any necessary service or activity.

In closing I wish to thank the members of the office staff who have the keeping of the books and the care of the other financial details of the Society, for the care and accuracy with which they have performed their duties and for their cheerful cooperation.

Respectfully submitted,
KIRBY DWIGHT, M.D., Treasurer

March 3, 1943

Auditors' Statement

We have completed an examination of the balance sheet of the Medical Society of the State of New York as of December 31, 1942, and the statements of income and capital for the year ended with that date, and have reviewed the system of internal control and the accounting procedures of the Society and without making a detailed audit of transactions have examined or tested accounting records of the Society and other supporting evidence by methods and to the extent we deemed appropriate.

In our opinion, the accompanying balance sheet and related statements of income and capital present fairly the position of the Society at December 31, 1942, and the results of its operations for the year ended that date.

Respectfully submitted,
J. K. LASSER & Co.,
Accountants & Auditors

February 1, 1943

Balance Sheet—December 31, 1942

ASSETS		
GENERAL FUND		
CURRENT ASSETS		
Cash in banks and on hand.....		\$106,520.45
Accounts Receivable—Advertisers.....	\$ 2,583.31	
Others.....	209.71	
	<u>\$ 2,793.02</u>	
Less: Reserve for Doubtful Accounts.....	295.78	2,497.24
Dues Receivable.....	\$ 13,310.00	
Less Reserves.....	<u>3,250.00</u>	10,060.00
Securities—		
At Market Value (Cost \$317,464.95).....	\$281,276.74	
Accrued Interest Receivable.....	<u>6,065.90</u>	287,342.64
Inventories—At Cost:		
Paper Stock.....	\$ 6,288.96	
JOURNAL Wrappers.....	<u>588.53</u>	6,877.49
		<u>\$413,297.82</u>
OTHER ASSETS		
1941–1942 Medical Directories, 852 on hand.....	\$ 1,601.76	
When Doctors Are Rationed, 113 on hand.....	<u>113.00</u>	
	\$ 1,714.76	
Advance Costs in Connection with 1943 Annual Meeting.....	<u>531.08</u>	2,245.84
FURNITURE AND FIXTURES		
At Nominal Value.....		2.00
		<u>\$415,545.66</u>
ENDOWMENT FUNDS		
CASH IN BANK.....		\$ 3,533.29
SECURITIES		
At Market Value (Cost \$5,808.75).....	\$ 4,671.25	
Accrued Interest Receivable.....	<u>27.09</u>	4,698.34
		<u>\$ 8,231.63</u>
<u>TOTAL ASSETS</u>		<u>\$423,777.29</u>

LIABILITIES AND CAPITAL

GENERAL FUND		
CURRENT LIABILITIES		
Accounts Payable.....	\$ 3,905.09	
Advertising Commissions Payable.....	2,883.50	
City Sales and Federal Unemployment Insurance Taxes Payable.....	<u>183.05</u>	\$ 6,971.64
DEFERRED INCOME		
Prepaid JOURNAL Subscriptions.....	\$ 995.62	
Prepaid 1943 Membership Dues.....	<u>2,880.00</u>	3,875.62
Reserve for future Annual Meetings.....		5,003.34
		<u>399,695.06</u>
CAPITAL—(page 620).....		<u>\$415,545.66</u>
ENDOWMENT FUNDS		
CAPITAL		
Lucien Howe Prize Fund.....	\$ 3,841.93	
Merritt H. Cash Prize Fund.....	1,770.67	
A. Walter Suiter Lectureship Fund.....	<u>2,619.03</u>	
	\$ 8,231.63	
		<u>\$423,777.29</u>
<u>TOTAL LIABILITIES AND CAPITAL</u>		<u>\$423,777.29</u>

CASH IN BANKS AND ON HAND

December 31, 1942

	Regular Funds	Investment Funds	Total
CHECKING ACCOUNTS			
Guaranty Trust Company.....	\$ 65,319.34		\$ 65,319.34
National City Bank of New York.....	4,971.84		4,971.84
The Chase National Bank.....	\$ 2,413.74	\$2,966.26	5,380.00
	<u>\$ 72,704.92</u>	<u>\$2,966.26</u>	<u>\$ 75,671.18</u>
SAVINGS ACCOUNTS			
Various Savings Banks.....	\$ 29,121.43	\$1,127.84	\$ 30,249.27
PETTY CASH FUNDS—OFFICE	\$ 600.00		\$ 600.00
TOTAL	<u>\$102,426.35</u>	<u>\$1,094.10</u>	<u>\$106,520.45</u>

PRIZE FUNDS

	On Deposit Union Dime Savings Bank
Lucien Howe Prize Fund.....	\$ 1,570.26
Merritt H. Cash Prize Fund.....	712.33
A. Walter Suiter Lectureship Fund.....	1,250.70
TOTAL	<u>\$ 3,533.29</u>

SECURITIES

The investments of the Society (General Fund) may be summarized as follows:

	At Cost
Bonds and Mortgages.....	\$172,912.00
Stocks.....	144,552.95
TOTAL	<u>\$317,464.95</u>

All of these securities are in the possession of the Chase National Bank as Custodian for the Trustees of the Medical Society of the State of New York.

CONDENSED STATEMENT OF OPERATING INCOME AND EXPENSES FOR THE YEAR
ENDED DECEMBER 31, 1942

OPERATING INCOME			
Members' Dues—Current Year 1942.....	\$167,270.00		
Less Reserves.....	<u>3,250.00</u>	\$164,020.00	
Prior Years.....		1,401.00	
		<u>\$165,421.00</u>	
Remitted and written off.....		5,370.00	
		<u>\$160,051.00</u>	
Net Profit—When Doctors Are Rationed		5.52	\$160,056.52
OPERATING EXPENSES			
Administrative, including Medical Preparedness.....	\$ 41,159.89		
Public Relations.....	14,633.13		
Legislative.....	16,518.07		
Net Cost of 1941–1942 Directories Distributed.....	1,557.98		
Net Cost of Journals.....	8,367.27		
Counsel Retainer Fees and Expenses.....	12,490.36		
Traveling Expenses.....	7,576.23		
Workmen's Compensation Bureau.....	9,435.69		
Scientific Activities.....	10,327.48		
Pension to Retired Office Manager.....	3,000.00		
District Branch Executive Committees' Expenses.....	<u>2,047.19</u>		127,113.29
EXCESS OF OPERATING INCOME OVER OPERATING EXPENSES			<u>\$ 32,943.23</u>

**ANALYSIS OF FINANCIAL INCOME, EXPENSE, AND CAPITAL FOR THE YEAR
ENDED DECEMBER 31, 1942**

	General Fund	Lucien Howe Prize Fund	Merritt H. Cash Prize Fund	A. W. Suiter Lecture- ship Fund
JANUARY 1, 1942, BALANCE.....	\$348,040.18	\$3,765.27	\$1,848.62	\$2,371.21
Additions—				
Excess of Operating Income over Operating Ex- penses.....	32,943.23			
Interest on Bank Balances.....	627.52	27.91	14.55	22.82
Income from Securities.....	13,010.59	102.50	35.00	100.00
Interest on Tax Refund.....	79.26			
Appreciation in Market Value of Securities Owned	10,869.66	46.25		175.00
	<u>\$405,570.44</u>	<u>\$3,941.93</u>	<u>\$1,898.17</u>	<u>\$2,669.03</u>
Deductions—				
Reserve for Annual Meetings, Credit Balances, 1940 and 1941 Meetings.....	\$ 3,307.02			
Depreciation in Market Value of Securities.....			\$ 27.50	
Loss on Sale of Securities.....	2,027.27			
Custodian and Investment Service Fees.....	541.09			
Prize Awards.....		\$ 100.00	100.00	\$ 50.00
	<u>\$ 5,875.38</u>	<u>\$ 100.00</u>	<u>\$ 127.50</u>	<u>\$ 50.00</u>
DECEMBER 31, 1942, BALANCE.....	<u>\$399,695.06</u>	<u>\$3,841.93</u>	<u>\$1,770.67</u>	<u>2,619.03</u>

Report of the Board of Trustees

To the House of Delegates; Gentlemen:

The Board of Trustees has the honor to report on its supervision of the financial affairs of the Society since your last meeting on April 27, 1942. This management has continued under the fiscal year—which for the first time corresponded with the calendar year—1942. The Board has found this method very satisfactory.

In December of 1942, the Council prepared and the Board approved, with minor modifications, a budget for the calendar-fiscal-year 1943. In this instance the Board, with eyes open to the increasing drop in dues income because of remission of state assessments for members entering service, decided to scrutinize carefully the experience during the first half of 1943, in case any revision of budget should become wise for the second half of the year. The preparation of the new budget was carried out with the keynote in mind of economy on all sides and in keeping with the custom of holding final expenditures within estimated dues income. The Board, while aware of the House action of 1942 recommending "to the Trustees that they use income from investments if they deem it necessary do do so," has so far found it unnecessary.

The investments of the Society have been, as always, the subject of close and constant study both from the point of view of soundness and of sustained income. Certain securities have been sold and others purchased. In particular, United States Defense Savings Bonds now form a material portion of

the invested funds, as well as United States Treasury Bonds. The Board in making changes in investments has had constant advice of the Chase National Bank.

The Board has met regularly on the same days as the Council—and with only two occasions when a single member had to be absent—thus keeping in close touch with all activities, and it has had close cooperation. The Treasurer, the Assistant Treasurer and the Secretary have sat regularly with the Board, with usually the President, also, and at times the chairman of the Finance Committee of the Council.

The Board has watched with satisfaction the care with which all concerned—Council, committees, officers of the Society—have conducted their work in the light of the letter sent out in January, 1942, by the then chairman of the Board, Dr. William A. Groat, as follows:

"At its meeting on January 8, 1942, the Board of Trustees requested me as its chairman to transmit to the administrative officers of the Society and the chairmen of all Council Committees a memorial urging them to conserve their Society resources by limiting their expenditures.

"This decision was reached after the Board had considered probable diminution in income that would develop from increased remissions of state assessments because of active military and naval service. In addition, the Board felt that rising taxes and interference with ordinary business might so disturb the financial status of other

members that they might be unable to pay their dues. It seems the part of wisdom, therefore, for all concerned with the various Society activities that involve expenditure of money to plan seriously on the cutting down of their outlays and the making of substantial budgetary savings."

This advice has been loyally followed. Due in part to close cooperation of the Council, the economies

put in operation have involved no curtailment of activities.

Respectfully submitted,
WILLIAM H. ROSS, M.D.
THOMAS M. BRENNAN, M.D.
GEORGE W. KOSMAK, M.D.
JAMES F. ROONEY, M.D.
EDWARD R. CUNIFFE, M.D., *Chairman*

Report of the Council

To the House of Delegates; Gentlemen:

Your Council has the honor to report on its executive and administrative management of the affairs of the Society in the period following your last meeting on April 27-30, 1942. The various matters that came before it, actions thereon, and recommendations are here presented in successive "Parts" of this report.

PART I

Postgraduate Education

The Council Committee on Public Health and Education was continued with the same personnel:

Oliver W. H. Mitchell, M.D., *Chairman*, Syracuse
George Baehr, M.D., New York
Charles Dayton Post, M.D., Syracuse

The Committee has carried on its expanded program on postgraduate education, on which it has presented the following report.

REPORT

On May 26, 1942, in New York City the Chairman of the Council Committee on Public Health and Education called a meeting of the Committee with representatives of the State Departments of Health and Labor to discuss plans for postgraduate education for the coming year. Special consideration was given to obstetrics, pediatrics, rheumatic fever, tuberculosis, communicable diseases, syphilis, sulfonamide therapy, war medicine and surgery, cancer, and industrial health. To encourage more clinic sessions it was decided to include the following statement in the *Course Outline Book*: "Upon request, any of the lecturers will substitute a clinic for the lecture if appropriate patients and facilities are available. This information must be given at the time the request for instruction is made." It was felt that more instruction, such as clinics conducted at state hospitals, should be given in tuberculosis. As a result of this discussion, three more course outlines on tuberculosis were included in the *Course Outline Book*.

Following this meeting, letters were sent to all physicians who had arranged courses in the past, requesting them to make any changes in subjects or speakers that they desired, and asking their permission to include the statement referred to above.

Most of the instructors listed in the *Course Outline Book* are connected with the medical schools. Because of the war, some were unable to participate in the program this year.

As a part of the defense program there was included an announcement of a course on the "Medical Aspects of Chemical Warfare." This course is sponsored by the Health Preparedness Commission of the New York State War Council, Medical Division of the Office of Civilian Defense, New York State Department of Health, the 9 medical schools in the state, and the Medical Society of the State of New York. An announcement of lectures on war medicine and surgery prepared by the Subcommittee

on War Medicine and Surgery appears on pages 73 and 74 of the *Course Outline Book*. This announcement does not list the subjects or speakers but states that for those interested this information will be supplied upon request.

As soon as the revised courses were received, 150 copies of the *Course Outline Book* were mimeographed. The *Book* as published contains 53 announcements, including outlines of courses, teaching days, and single lectures on special subjects. Copies of the book were sent to the secretaries of all County Medical Societies, together with a letter noting special subjects offered. It was requested that each desiring instruction notify the as soon as possible. Copies were also sent to the members of the Committee and the Subcommittees, officers of the Medical Society of the State of New York, deans of medical schools, the Commissioner of Health of the New York State Department of Health, and Division Directors, members of the Board of Regents of the University of the State of New York, the Commissioner of Education of the State Education Department and some of the directors of divisions in the Department who are concerned with school health problems, and the Secretary of the Council on Medical Education and Hospitals of the American Medical Association. Requests have been received from several organizations for copies of the *Course Outline Book*. Because of a limited supply the distribution was curtailed to a considerable extent.

Arrangements for postgraduate instruction, either as courses consisting of a series of lectures or as single lectures, were made for thirteen county medical societies. The following is a list of the counties which have had or will have had these meetings:

County	Instruction	No. Lectures
Columbia	General Medicine	5
Cortland	Miscellaneous	4
Jefferson	General Medicine	5
Madison	General Medicine	6
Oneida	{Sulfonamide Therapy	1
	{War Medicine and Surgery	4
Onondaga	Miscellaneous	3
Putnam	Sulfonamide Therapy	1
St. Lawrence	Public Health	1
Seneca	General Medicine	1
Steuben	Sulfonamide Therapy	1
Tioga	Sulfonamide Therapy	4
Tompkins	Miscellaneous	3
Westchester	Obstetrics	2

Regional Meetings and Teaching Days.—Regional Meetings and Teaching Days have proved to be a very popular form of postgraduate instruction. A teaching day consists of a combination of clinics, demonstrations, and lectures. For these meetings, invitations were sent to the memberships of the medical societies in counties adjacent to that in which the instruction was given, or to the membership in certain "Regions" and "Districts" where the meetings were held. This Committee arranged for speakers, and for printing and distribution of programs to county medical societies, medical schools,

ANALYSIS OF FINANCIAL INCOME, EXPENSE, AND CAPITAL FOR THE YEAR ENDED DECEMBER 31, 1942

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"This decision was reached after the Board had considered probable diminution in income that would develop from increased remissions of state assessments because of active military and naval service. In addition, the Board felt that rising taxes and interference with ordinary business might so disturb the financial status of other

7. Jefferson, Lewis, Herkimer, Hamilton
James L. Crossley, M.D., 240 Woolworth
Building, Watertown
8. Onondaga, Oswego, Oneida, Madison, Cort-
land, Cayuga
Edward C. Hughes, M.D., 601 Medical Arts
Building, Syracuse
9. Broome, Tioga, Chenango, Otsego, Delaware,
Sullivan
Stuart B. Blakely, M.D., 140 Chapin Street,
Binghamton
10. Monroe, Orleans, Wayne, Livingston, On-
tario, Yates, Seneca
Ward L. Ekas, M.D., 176 South Goodman
Street, Rochester
11. Chemung, Schuyler, Steuben, Tompkins,
Allegany
R. Scott Howland, M.D., 531 West Water
Street, Elmira
12. Erie, Niagara, Chautauqua, Cattaraugus,
Genesee, Wyoming
Robert C. McDowell, M.D., 40 North
Street, Buffalo

Child Welfare.—On July 23, 1942, the Chairman of the Committee on Public Health and Education conferred with representatives of the New York State Section of the American Academy of Pediatrics to discuss the possibility of combining some parts of the Child Welfare Program with the programs of the American Academy of Pediatrics. In view of this request for a separate committee to work with the New York State Section of the American Academy of Pediatrics, the following plan was submitted to the Council by the Chairman of the Committee on Public Health and Education: "Continue the Subcommittee on Maternal Welfare with its present membership—that is, three obstetricians and a pediatrician; appoint a subcommittee on child welfare with the following members: Chairman, the pediatrician who is a member of the Subcommittee on Maternal Welfare; two pediatricians who are now members of the present Subcommittee on School Health Service; abolish the present Committee on School Health Service and assign these duties to the newly created Subcommittee on Child Welfare; for a fourth member of the Subcommittee on Child Welfare, have the Chairman of the Subcommittee on Maternal Welfare." The Council adopted this recommendation and the President, with the approval of the Council, appointed the following to the new Subcommittee on Child Welfare: Alexander T. Martin, M.D., *Chairman*, New York; Paul W. Beaven, M.D., *Vice-Chairman*, Rochester; Charles A. Gordon, M.D., Brooklyn; Albert D. Kaiser, M.D., Rochester; and A. Clement Silverman, M.D., Syracuse.

Regional Chairmen in Pediatrics are as follows, for Regions comprising counties as shown in above list of Regional Chairmen in Obstetrics:

1. Harry Bakwin, M.D., 132 East 71 Street, New York
2. Charles A. Weymuller, M.D., 85 Pierrepont Street, Brooklyn
3. Reginald A. Higgins, M.D., 264 King Street, Port Chester
4. James J. York, M.D., 930 State Street, Schenectady
5. Hugh F. Leahy, M.D., 176 Washington Avenue, Albany
6. Sidney Mitchell, M.D., 71 Court Street, Plattsburg
7. Norman L. Hawkins, M.D., 300 Woolworth Building, Watertown

8. Brewster C. Doust, M.D., 605 Medical Arts Building, Syracuse
9. John B. Burns, M.D., 153 Chapin Street, Binghamton
10. Albert D. Kaiser, M.D., 16 North Goodman Street, Rochester
11. George R. Murphy, M.D., 531 Water Street, Elmira
12. William J. Orr, M.D., 135 Linwood Avenue, Buffalo

Tuberculosis and Chest Diseases.—The 1942 House of Delegates adopted the following resolution: "In view of the great importance of chest diseases not only to the general practitioner but to a large majority of the various specialties as well, we recommend that the Public Health and Education Committee of the Council create a subcommittee on diseases of the chest."

The Chairman of the Committee on Public Health and Education recommended that instead of a subcommittee on chest diseases there be appointed a subcommittee on tuberculosis and chest diseases under the Council Committee on Public Health and Education. The President, with the approval of the Council, appointed the following members to the Subcommittee on Tuberculosis and Diseases of the Chest: Charles D. Post, M.D., *Chairman*, Syracuse; Louis C. Kress, M.D., Albany; and Nelson W. Strohm, M.D., Buffalo.

Three meetings of the Subcommittee on Tuberculosis and Diseases of the Chest have been held for the purpose of promoting more postgraduate instruction in tuberculosis and diseases of the chest. With the approval of the Council, letters were written to secretaries of county medical societies requesting that they appoint committees or individuals to represent the societies in the field of tuberculosis control. To date 44 replies have been received stating that provision for this service has been made. Letters were sent to the designated representatives explaining that it was the desire of this Subcommittee to stimulate interest in county medical societies regarding case finding and to have each county society, through its designated representative, indicate what is desired in the way of information, postgraduate instruction, or any other means by which this undertaking may be accomplished.

The Chairman of the Subcommittee met with a representative from the State Tuberculosis Conference Committee and a member of the State Department of Health to consider especially the desirability of amending Section 326-A, Public Health Law, in such a manner that more strict control of dangerous and careless patients will be brought about. As a result of this joint session it was decided to make a survey of the open cases in some of the populous areas in the state. The purpose of these surveys is to obtain data regarding supervision and isolation of the open cases.

Plans are being made for a luncheon conference of the representatives of county medical societies and other groups interested in the Tuberculosis Control Program to be held at the time of the Annual Meeting of the Medical Society of the State of New York.

Industrial Health.—The Study Committee on Industrial Health, which is a subcommittee of the Council Committee on Public Health and Education, has the following membership: Herbert H. Bauckus, M.D., *Chairman*, Buffalo; Robert K. Brewer, M.D., Syracuse; John H. Garlock, M.D.,

hospitals, THE NEW YORK STATE JOURNAL OF MEDICINE, *The Journal of the American Medical Association*, and other publications. The Medical Society of the State of New York pays traveling expenses of the speakers, and the honoraria for all speakers are

paid by the Medical Society of the State of New York or the New York State Department of Health. The following is a list of counties where Regional Meetings or Teaching Days have been held or will be held this year:

County	Region	Instruction	No. Lectures
Broome	Sixth District Branch (Broome, Chemung, Chenango, Cortland, Delaware, Otsego, (Schuyler, Tioga, Tompkins)	*Cancer	4
Chemung	Adjacent Counties (Chemung, Schuyler, Steuben, Tioga, Tompkins)	Two Teaching Days: 1. War Medicine and Surgery 2. General Medicine	3 3
Erie	Eighth District Branch (Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming)	*Cancer	5
Monroe	Seventh District Branch (Cayuga, Livingston, Monroe, Ontario, Seneca, Steuben, Wayne, Yates)	*Cancer	4
Oneida	Fifth District Branch (Herkimer, Jefferson, Lewis, Madison, Oneida, Onondaga, Oswego)	*Cancer	4
Onondaga	Adjacent Counties (Onondaga, Cayuga, Cortland, Madison, Oswego)	Industrial Health	4
Otsego		Two Teaching Days: 1. Virus Diseases 2. Sulfonamide Therapy	2 4
Schenectady	Region No. 4 (Fulton, Greene, Montgomery, Schenectady, Schoharie, Ulster)	Maternal Welfare	2
St. Lawrence		{Plasma Therapy; War Medicine and Surgery	2
Westchester	Region No. 3 (Duchess, Orange, Putnam, Rockland, Westchester)	Maternal and Child Welfare	5

Public Health matters receiving particular emphasis from the New York State Department of Health and the Medical Society of the State of New York this year have been: cancer, obstetrics, pediatrics, communicable diseases, rheumatic fever, tuberculosis, syphilis, sulfonamide therapy, war medicine and surgery, plasma therapy and whole blood transfusion, and industrial health. The part of the Committee in these activities has to a large extent been in the field of postgraduate instruction. Instruction in many of these subjects has been given and a share of the cost was borne by the New York State Department of Health. The counties and the subjects were the following:

County	Instruction	No. Lectures
Broome	Cancer	5
Chemung	War Medicine and Surgery	3
Columbia	Sulfonamide Therapy	1
	Obstetrics	1
	Pediatrics	1
	Rheumatic Fever	1
Cortland	Pediatrics	1
	War Medicine and Surgery	1
Erie	Plasma Therapy	1
Monroe	Cancer	5
	Cancer	4
Oneida	Cancer	4
	Sulfonamide Therapy	1
Onondaga	War Medicine and Surgery	4
	War Medicine and Surgery	1
Otsego	Industrial Health	4
	Pediatrics	1
Putnam	Sulfonamide Therapy	4
	Sulfonamide Therapy	1
St. Lawrence	Plasma Therapy	2
	War Medicine and Surgery	2
Schenectady	Obstetrics	2
Steuben	Sulfonamide Therapy	1
Tioga	Sulfonamide Therapy	4
Tompkins	War Medicine and Surgery	1
Westchester	Obstetrics and Pediatrics	7

The Committee arranged for 83 lectures, 61 of which were given jointly by the New York State Department of Health and the Medical Society of the State of New York.

PART II

Public Health Activities

Maternal and Child Welfare.—The Committee on Public Health and Education held a meeting in

* Teaching Day Cost borne wholly by N. Y. State Health Dept.

New York City on April 28, 1942, with the Subcommittee on Maternal and Child Welfare, Regional Chairmen in Obstetrics and Pediatrics, and representatives of the New York State Department of Health. Matters which received most attention were:

1. Coordination of the maternal and child welfare activities of the Medical Society of the State of New York and the State Department of Health.
2. Subjects to be included in the Regional programs.
3. More emphasis on pediatrics in Regional programs.
4. The proposed "Consultant Service."

All of these matters were referred to the Committees for further consideration.

The Subcommittee on Maternal Welfare has the following members: Charles A. Gordon, M.D., Chairman, Brooklyn; Alexander T. Martin, M.D., New York City; James K. Quigley, M.D., Rochester; and Ferdinand J. Schoeneck, M.D., Syracuse.

Regional Chairmen in Obstetrics:

1. New York, Richmond, Bronx
George W. Kosmak, M.D., 23 East 93 Street, New York
2. Kings, Queens, Nassau, Suffolk
Harvey B. Matthews, M.D., 643 St. Marks Avenue, Brooklyn
3. Westchester, Rockland, Dutchess, Putnam, Orange
Julian Hawthorne, M.D., Highland Hall Apartment, Rye
4. Schenectady, Fulton, Montgomery, Schoharie, Greene, Ulster
William M. Mallia, M.D., 1364 Union Street, Schenectady
5. Albany, Washington, Saratoga, Columbia, Warren, Rensselaer
Joseph O'C. Kiernan, M.D., 496 Madison Avenue, Albany
6. Clinton, Essex, Franklin, St. Lawrence
Elmer Wessell, M.D., 72 Clinton Street, Plattsburg

New York City on May 13, 1942, to discuss the educational program.

In addition to single lectures given before county medical societies, a Teaching Day was arranged for the Chemung County Medical Society and held in Elmira on June 25, 1942. Notices were sent from this office to the following county medical societies: Chemung, Schuyler, Steuben, Tioga, and Tompkins. The attendance was good, and the meeting was regarded as very successful.

The membership of the Subcommittee on War Medicine and Surgery is as follows: O. W. H. Mitchell, M.D., *Chairman*, Syracuse; Gustave Aufrecht, M.D., New York; Louis H. Bauer, M.D., Hempstead; L. Whittington Gorham, M.D., Albany; Leonard Greenburg, M.D., New York; Leo Mayer, M.D., New York; James E. Perkins, M.D., Albany; Byron Stookey, M.D., New York; and Frederick S. Wetherell, M.D., Syracuse.

Rheumatic Fever.—The Chairman of the Committee on Public Health and Education held several conferences with members of the Subcommittee on Child Welfare regarding the Rheumatic Fever Program. Other conferences were held with Dr. George M. Wheatley, Assistant Medical Director of the Metropolitan Life Insurance Company, regarding publications distributed by the company for lay and medical education on rheumatic fever.

In cooperation with the New York State Department of Health, some instruction on rheumatic fever was presented before county medical societies.

Medical Aspects of Chemical Warfare.—As a result of a conference between the Council Committee on Public Health and Education and representatives of the Office of Civilian Defense, the Health Preparedness Commission of the New York State War Council, and the New York State Department of Health, it was decided to offer instruction in the "Medical Aspects of Chemical Warfare" in New York State and that the best plan would be to operate through the medical schools. The deans of the medical schools readily gave approval and it was decided that each school should send physicians, who were to conduct the programs, to the course on chemical warfare given at the University of Cincinnati. This was done and the funds to meet the expenses of these representatives were supplied by the Health Preparedness Commission of the New York State War Council. The Chairman of the Council Committee on Public Health and Education also attended this course.

The course presented to the medical profession of New York State consists of six hours of lectures and demonstrations under the following main subjects:

1. Review of chemical warfare agents, history, and classification.
2. Pathology, symptomatology, differential diagnosis, and treatment.
3. General protective measures.

The courses were organized in the medical schools because they require the use of special equipment and material which cannot be made easily available at meetings of most of the county medical societies. However, arrangements were made for groups of teachers to present this instruction in a few areas of the state which are remote from medical schools.

An announcement of this instruction appears on pages 17 and 18 of the *Course Outline Book*.

Blood Plasma Therapy and Whole Blood Transfusion.—The Council approved the offering of post-graduate instruction in plasma therapy and whole blood transfusion. The Chairman of the Committee

on Public Health and Education held several meetings with representatives of the New York State Department of Health, the Health Preparedness Commission of the State War Council, the Office of Civilian Defense, and the Association of Public Health Laboratories to discuss the blood plasma program. Preceding the announcement of instruction on plasma therapy and whole blood transfusion, a one-day conference was held at Albany on February 26, 1943. Leading authorities on plasma therapy and whole blood transfusion addressed the physicians who are to present this program. This instruction is offered in a single session or in connection with formal courses or for special or regular meetings of county medical societies. An announcement to be added to the *Course Outline Book* has been prepared and mailed from this office to the secretaries of county medical societies. Twenty-one speakers are available. It is anticipated that this instruction will be much in demand. Some requests for instruction have already been received.

4-H Clubs and Youth Health Activities.—The Chairman of this Subcommittee, Dr. J. G. Fred Hiss, has devoted much time and effort to improving the health program among the 4-H Clubs throughout the state. The cooperative extension service, of which 4-H is a part, is concerned with the welfare of rural people. Health is an important consideration. However, the extension service is not specifically charged with the protection of public health. It does cooperate with agencies which are so charged. Now that we are in a state of "total war" it is imperative that we do everything possible to preserve our health.

For several years 4-H has been guided in its health activities by a state committee made up of club agents, specialists, and members of the 4-H administrative staff, together with representatives of the New York State Department of Health, the New York State Department of Education, the Medical Society of the State of New York, the New York State Dental Society, the American Red Cross, and other interested organizations.

This Committee has recommended and has approved the following 4-H Health Improvement Project:

OBJECTIVES

1. To encourage the correction of remediable defects disclosed by school health inspections or other health examination.
2. To encourage protective immunizations as recommended by health officials.
3. To encourage the acquirement of good habits, knowledge, and skills related to health and safety.
4. To give opportunity for service to the community in the promotion of public health and safety.

PROJECT REQUIREMENTS

(A score sheet has been planned which the local leader can fill out at a club meeting and then return to you.)

- I. Health Examination.....15 points
A health examination must be held at or near the beginning of the club year. If the club member has had a school health inspection at the beginning of the current school year, no other examination is required. If not, an examination may be made by any physician. A club may arrange with a physician for an examination of all the members at some mutu-

New York; David J. Kaliski, M.D., New York; John S. Lawrence, M.D., Rochester; Frederic E. Sondern, M.D., New York; ex-officio: Edward S. Godfrey, M.D., Commissioner of Health, State Department of Health, Albany; and Leonard Greenburg, M.D., Executive Director, Division of Industrial Hygiene, State Department of Labor, New York City.

With the increased importance of industrial health as a potent weapon in the nation's program of conservation of manpower, the Study Committee for Industrial Health found a ready response to the programs and activities which it sponsored during the year. The Committee, which met several times during this period, fully realized the part it could play in developing a new alertness toward the problems of industrial health, not only in the minds of the members of the medical profession, but in the community as well, and consequently made an effort to function as a stimulating force in several of our important war centers.

The key issue before all committees at this time is the question, "How can we best contribute to the winning of the war?" which must be answered by applying study, planning, and activities of a committee of this kind to industrial areas where values can be measured in concrete improvements of industrial health procedures, reducing thereby to a minimum the loss of man-hours from sickness and accidents.

With this in mind the Committee held its first Teaching Day on Industrial Health in May, 1942, in Buffalo. A full report on this meeting is contained in the Annual Report of last year. The broad community participation at this meeting set the pace for other meetings of this kind, and the Teaching Day on Industrial Health which took place in Syracuse in September proved an equally great success in attendance as well as in composition. As a matter of fact, both events proved that there is a relatively greater interest in industrial health on the part of the community than there is on the part of the medical profession, and continuous efforts must be made in the year to come to arouse the members of the county societies to the need of acquainting themselves with the constantly developing and comparatively young science, industrial health.

The Chairman of this Committee helped organize the conference "Community Health in Wartime," which took place in Buffalo during June. Industrial Health and Nutrition in Industry were the sessions prominently featured, and they resulted in vital suggestions and proposals for future programs in this field. For the first time nationally, the sessions brought together physicians, management, and labor in consultation on common problems, and it was here that the now nationally promoted goal of labor-management health committees was first formulated.

The Buffalo District Committee for Industrial Health must be considered a direct outgrowth of this conference. The establishment of this Committee three months ago, headed by the Chairman of the Study Committee on Industrial Health, was further justified by the lively interest not only of the State Society, but also of the American Medical Association, the Division of Industrial Hygiene of the New York State Department of Labor, headed by Dr. Leonard Greenburg, and the Division of Industrial Hygiene of the U.S. Public Health Service, under the direction of J. J. Bloomfield. The cooperation of all these groups through general advice and personal consultation had an important share in the initial success of the Buffalo Committee.

It is to be hoped that other districts will establish similar communities.

Briefly, the Buffalo Committee, which is composed of representatives from management, labor, the medical and nursing professions, and a few pertinent voluntary and official agencies, desires to be a public relations and fact-finding body. It hopes to assist plants in making their health and safety programs efficient and practical, and it aims for a broad educational program within management, labor, and physician groups. Already the Committee has distributed to all plants and unions in the Buffalo-Niagara Area a manual for "Minimum Medical Standards in Industry" for plants of various sizes, together with an informative bulletin on keratoconjunctivitis. An open forum of the Committee, for management and labor representatives, will take place in April.

The Chairman of your Study Committee was fortunate in attending the Fifth Annual Congress of the Council on Industrial Health of the American Medical Association, on January 11-13, 1943. The participation in the sessions of this gathering enabled him to carry back with him three principles which crystallized out of the deliberations at this meeting, and which, in his opinion, must become a guiding factor in the future work of the State Society Study Committee on Industrial Health. They are included here to strengthen the work of this Committee and to serve as a guide to those county societies which are now in the process of developing local committees:

1. The American Medical Association is ready, in terms of policy as an organization, to make industrial health the foremost issue at the present time, as one of the most important contributions to the war effort and the conservation of manpower.
2. The exigencies of the war will require new ways of thinking in applying industrial health planning, a broadening of all previous concepts in industrial health, and an economy of available forces while expanding service.
3. No longer can the health of the workers be considered industry's responsibility alone. It must become a joint effort of management, labor, and the physician, for which labor-management health committees will prove to be the most practical vehicle.

Dental Health.—The Council Committee on Public Health and Education and the Joint Committee on Dental Health conferred with representatives of the Department of Hospitals of New York City, New York State Dental Society, Office of Civilian Defense, Health Preparedness Commission of the State War Council, New York State Department of Health, and the Medical Society of the State of New York, on the possibility of the Medical Society of the State of New York's setting up training courses for dentists in Emergency War Medicine and Surgery.

The Joint Committee on Dental Health has the following members: *New York State Dental Society*—H. Shirley Dwyer, D.D.S., Chairman, Brooklyn; Leuman M. Waugh, D.D.S., New York; and Charles H. McNeely, D.D.S., Brooklyn.

Medical Society of the State of New York—Harry Aranow, M.D., New York; and O. W. H. Mitchell, M.D., Syracuse.

War Medicine and Surgery.—The Committee on Public Health and Education held a meeting with the Subcommittee on War Medicine and Surgery in

schools, it is necessary to decide upon course content and other matters. To assist in this program, the Committee on Public Health and Education held a meeting with the Subcommittee on Child Welfare, the Subcommittee on 4-H Clubs and Youth Health Activities, representatives from the New York State Departments of Health and Education, and the New York State Association of School Physicians. As a result of this meeting, at which the various phases of the problem were discussed, it was decided that the Medical Society of the State of New York should provide two or more representatives to confer, upon request, with those in charge of these programs in the New York State Department of Education. This recommendation was submitted to the Council on February 11, 1943, and was approved.

Several conferences were held by the Chairman of the Committee on Public Health and Education with Dr. Hiram A. Jones, State Director of Physical Fitness of the Office of Physical Fitness of the State War Council, regarding a cooperative program between the Medical Society of the State of New York and several government and voluntary agencies. The plan for providing essential health examinations in connection with the Physical Fitness Program was developed and approved by the Council.

PART IV

Publications

The Publication Committee, as prescribed at your last meeting, started this year with four members: the general manager, the business manager of JOURNAL and the *Directory*, the treasurer, and a trustee, Dr. Thomas M. Brennan. These then selected as literary editor Dr. Laurance D. Redway, who thus became the fifth member. The Committee has held regular and special meetings. Under supervision of the Council the Committee has continued its charge of publications.

Directory.—In accord with your instruction, the *Medical Directory of New York, New Jersey, and Connecticut* was not published in 1942. Also in accord with your action, the Council exercised its discretion, deciding not to start compilation for the next edition until you have again considered the matter at your 1943 meeting.

The Council at its December 10, 1942, meeting formally decided "to recommend to the 1943 House of Delegates that the *Medical Directory of New York, New Jersey, and Connecticut* be not published for the present."

The Council has had in mind not only the need for economy but also the fact that, with many physicians in service and entering service, the addresses would frequently be incorrect and other data incomplete.

Journal.—Editorially the NEW YORK STATE JOURNAL OF MEDICINE has carried on in the customary fashion. Scientific articles numbered 211, with total page content 1,184 out of the overall page content of 2,336 pages. The scientific text is less by a small amount than in 1941, due in part to limitation of total pages to 96 per issue (with the exception of the Convention issue of 160 pages).

In the text, in addition to individual authors' articles, 12 articles have appeared reporting Conferences on Therapeutics and 12 on Diagnostic Conferences. There have been many commendatory comments on these conferences.

Other text pages have been as follows:

Postgraduate Medical Education.....	19 pages
Hospital News.....	20 pages
Medical News.....	67 pages
Woman's Auxiliary.....	13 pages
Medicolegal.....	11 pages
Book Reviews.....	51 pages
Editorials.....	96 pages

As to finances, Mr. Dwight Anderson, Business Manager of the JOURNAL, has given the following report.

REPORT

Journal.—Financially, the Council reports that the JOURNAL in 1942 was produced at the lowest cost in its history—fifty cents per dues-paying member, or a total net cost of \$8,367.27. The net cost in 1941 was \$15,847.58, showing a decrease in cost to the Society in one year of \$7,480.31.

This was accomplished despite increased expense for paper and printing equalling \$1,361.34; and decrease in net returns from reprints of \$502.70. The element in the picture which accounts for the improvement is the increased income from advertising, amounting to \$10,702.48 (after deducting cash discounts, agency commissions, and salesman's commissions).

Two factors contributed to increase this revenue; a rise in advertising rates which became effective January 1, 1942, and an increase of 69 pages of advertising in 1942, as compared with 1941.

Directory.—While *Directory* publication is suspended during the war, the sales of copies to the public continued during 1942, producing \$632.50 income from this source. On December 31, 1942, we had on hand 852 copies. Sales during 1943 are continuing.

Comparison of the net cost of the 1941-1942 *Directory* with that of 1939-1940, according to the audit, shows a net cost, respectively, of \$21,256.67 as compared with \$22,931.58, or a reduction in net cost of the last *Directory* of \$1,674.91. An adjustment for comparison must be made, for the 1941-1942 *Directory* was charged with certain salaries of employees which were not so charged in the former edition, although the services were actually performed. These amounted to \$1,891.66, making a total saving on the net cost of the two *Directories* of \$3,566.47.

Medical Publicity

November 2, 1942, the publishing house of Coward McCann, Inc., New York, issued a book by Dwight Anderson and Margaret Baylous entitled "When Doctors Are Rationed." The Public Relations Bureau undertook the distribution of this book by direct mail and sold 1,852 copies. The publisher's bookstore sales are expected to increase the distribution to a total of 2,852 copies. Revenue from the sale paid all expenses for the cost of books, promotion, royalties, wrapping, and mailing.

Releases.—Releases concerning postgraduate education courses sponsored by the Council Committee on Public Health and Education were sent to newspapers in the following counties: Chemung, Columbia, Cortland, Greene, Onondaga, Schoharie, Schuyler, Steuben, St. Lawrence, Tioga, Tompkins, Ulster, and Westchester.

Other releases included: special release to the press of the state on the response of physicians in New York State to the call of the government for medical officers to enter the armed services; a

- ally convenient time, usually at a saving in cost. A credit of 15 points is given for the examination, regardless of the findings.
- II. Correction of Defects . . . 35 points
Emphasis is to be placed on following the recommendations of the examining physician. If no defects were found on examination and all immunization requirements were met, or if all recommendations have been carried out, or if cases requiring prolonged treatment are under way, a credit of 35 points is given.
- III. Health and Safety Training . . . 30 points
A credit of 30 points is given for satisfactory completion of one or more of the following:
1. First Aid: 4-H or Red Cross
 2. Home Nursing: 4-H or Red Cross
 3. Life Saving and Water Safety: Red Cross Swim Tests
 4. Home and Farm Safety: Red Cross Course
- IV. Community Health and Safety Education . . . 20 points
A credit of 20 points is given for participation in two or more of the following:
1. Exhibit
 2. Demonstration
 3. Posters: Made and displayed 2 posters
 4. A talk on health and safety to a group, or a radio broadcast
 5. Immunization clinic
 6. Vaccination clinic
 7. Sale of Christmas Seals
 8. Milk Month
 9. Posture Week
 10. Child Health Day
 11. Nutrition Week
 12. Other community health and safety observances

Possible score	100 points
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PART III

School Health Program

During the year several conferences were held by the Chairman of the Council Committee on Public Health and Education with representatives of the Division of Health and Physical Education of the New York State Department of Education and the New York State Association of School Physicians to discuss plans for improving school health service and health education and increasing the correction of defects.

The Committee on Public Health and Education, the Subcommittee on Child Welfare, and the Subcommittee on 4-H Clubs held a meeting in Syracuse on October 26, 1942, with representatives of the Division of Health and Physical Education of the New York State Department of Education, Assistant Commissioner for Instructional Supervision of the State Department of Education, and the New York State Association of School Physicians. There was general discussion of the School Health Program with special attention given to the following subjects.

1. *Undergraduate Instruction of Medical Students in School Health*—It was the unanimous opinion of this group that the Health Committee of the New York State Board of Regents should confer with the deans of medical schools in New York State to discuss mini-

mum undergraduate instruction in school health.

2. *Postgraduate Instruction in School Health*—It was agreed that more postgraduate instruction in school health should be available for physicians, especially those who are at present in the school services and those who wish to prepare for the school services.
3. *Requirements for Appointment as School Physicians*—It was the unanimous opinion of the group that requirements for physicians devoting less than half time should be considered by the State Department of Education. This advance would receive popular approval and result in financial support in keeping with the character and importance of the work.
4. *The Annual Physical Examination of School Children*—The importance of the annual physical examination as a health educational exercise was stressed. Records were submitted by the State Department of Education showing the number of physical defects discovered each year. The report was compiled in a way which avoided repetition of recorded defects of other years. Corrected defects were also reported. This report of a large percentage of the schools of upstate New York was very informative.
5. *Correction of Remediable Defects*—Attention was directed to the correction of remediable defects, and several proposals were suggested for improvement. It is evident there is need for much closer relationship and better teamwork between the family physician and the school physician.
6. *School Health Committees for County Medical Societies*—While the different organizations at the state level send representatives regularly to interorganizational and interdepartmental conferences, relatively little effort is made to bring representatives of the local—that is, county and city—organizations together. The group decided that the county medical societies should be requested to appoint committees on school health. Such a committee would be a separate one or a subcommittee of the Child Welfare or Public Health Committee. The members of the committee should represent school health, welfare, and other services concerned with school health and child welfare. Such a committee would concern itself with the whole broad subject of school health and would submit reports to the county medical society and probably other organizations. Except for special studies, such as tuberculosis and rheumatic fever, county medical societies have been rarely concerned about the School Health Program. The Committee on Public Health and Education agreed, if the Council approved, to request county societies to appoint committees on school health.

With the approval of the Council, the Committee on Public Health and Education sent letters to the secretaries of county medical societies requesting the appointment of committees to represent the societies in the field of school health. To date, 34 replies have been received stating that provisions have been made for this service.

Now that the New York State Department of Education has made provision for health education in the schools with a formal course in the high

wide plan, the county societies were circularized for an expression of opinion on this question. The great majority of answers was in favor of setting up a state-wide plan, and your Council decided to watch the results of the individual plans for a possible application on a state-wide basis in the coming year.

Both the Utica and the Western New York plans dropped their contract for medical service entirely, and with it any previously existing coinsurance clause, and substituted instead a surgical indemnity contract with a medical rider optionally attached to it. Utica reports noticeable progress in enrollment with this new form of contract. Western New York has only recently finished rewriting its contract, and no promotion has yet started.

A valuable session on medical care programs and labor's specific interests and demands for such plans was held in Buffalo in June. This exchange of opinion resulted in later joint discussion between union leaders and representatives of the Western New York plan for future promotion through organized labor channels, with a promise for labor's participation in the general administration.

Owing to the differences in problems it was found advisable to establish an upstate committee and a southeastern committee on Medical Expense Indemnity Insurance, the latter comprising the metropolitan and southeastern area of New York State. The members of these committees are listed above. Both groups met independently, and valuable and useful information was derived. At a special meeting of the southeastern group an opinion was sought from the county societies represented regarding the possibility of a merger between the three New York City plans: Medical Expense Fund, Inc.; Community Care, Inc.; and Plan B of the Kingsley Roberts group. The southeastern committee has continued its contacts with the three local plans and can report that much attention has been given by these three companies to the suggestions. Further consideration will be given this question.

We want to take this opportunity to thank the members on both these committees for their interest and time given to these problems. Thanks should also go to the managers of the various plans, who assisted greatly by giving us concrete information whenever our joint planning called for it, and by generally cooperating with this subcommittee.

May we say in conclusion that only a united effort on the part of the medical profession will build voluntary prepayment plans? Every individual member carries the same great responsibility in the success of this most important enterprise of organized medicine.

PART VI

Medical Relief

The Council continued the subcommittee with Dr. E. Christopher Wood of White Plains as chairman. When Dr. Wood went into service in the fall of 1942, his substitute as councilor was appointed. The personnel became:

Ralph T. Todd, M.D., *Chairman*.....Tarrytown
 Carlton E. Wertz, M.D.....Buffalo
 F. :Scotia
 T

REPORT

During the month of October, 1942, this Committee lost the services of its able chairman, Dr. E. Christopher Wood, to the service of his country as a

major in the Medical Corps. Last year Dr. Wood, in his Committee report to the House of Delegates, included the "Joint Statement" from the New York Department of Social Welfare and the Medical Society of the State of New York. Whenever problems have arisen necessitating a conference between the Welfare Department and the Medical Society, this "Joint Statement" has been used as the basis for arbitration.

Before Social Security came into being, the doctor caring for the Old Age Assistance patient received his pay directly from the Welfare Department. It is now the policy of the Federal Government to pay the recipient directly, who then in turn pays the doctor for services rendered. In order to cooperate with the Welfare Department so that they may be reimbursed by the Federal Government, Dr. Wood's Committee agreed to this procedure. Dr. Wood reported this fact to the House of Delegates, and stated that "The experience with the plan to date indicates that patients fail to pay physicians for authorized services only in a negligible number of cases." Since this report, your Committee has had reason to doubt this statement. The Welfare Department has been informed of the condition as we believe it to be at the present time. They have agreed to send an itemized bill to the patient of the Old Age group, definitely stating the amount due the doctor. Your Committee hopes that this plan will overcome the present situation. However, it may not. Therefore doctors rendering authorized care and not receiving their proper remuneration should immediately write a letter to this Committee giving the name of the patient, the case number, and all pertinent facts, in order that your Committee may correct this condition at an early date.

In certain areas throughout the state, doctors who customarily had the care of the Welfare patients have been called into the armed services. It is, therefore, essential that the doctors remaining in these areas assume the care of these Welfare patients so that there will be no necessity for any outside agency coming into their communities.

The care of service men's families, while they are in the armed forces, is being considered by the Welfare Department. To date, no provision for this group has been made, but we hope to have a favorable report on this question in the near future.

PART VII

Legislation

The Council Committee, charged with the duty of studying legislation and putting forth the positions taken by the Society, was continued with the same personnel:

John L. Bauer, M.D., *Chairman*.....Brooklyn
 Walter W. Mott, M.D.....White Plains
 Leo F. Simpson, M.D.....Rochester

The Committee makes the following report as of March 1, 1943. A supplementary full report will be ready for the House on May 3, 1943.

REPORTS

The Council Committee on Legislation respectfully submits this preliminary report, a very brief one as requested.

Legislation, which you and your confreres are interested in, legislation which affects vitally your patients—the people—and the practice of medicine, which of itself is altruistic, must be considered most essential this year.

special release to the press of the state calling attention to the increased attendance of physicians in the older age groups at District Branch Meetings.

Bulletins.—The following Club Talk bulletins were published: *Premature Babies; On Starting to School; Ration Tickets for the Doctor; What Is the Truth About Cancer; A Captain Gets Demoted; Share Your Blood with the Boy Next Door; It's Only Measles.*

The mailing list was pruned carefully before the beginning of these mailings in 1942 and was reduced from 819 to 594, eliminating approximately one-third of the names on the list.

District Branch Meetings.—Newspaper releases were sent to the daily press in the counties comprising District Branches concerning the fall meetings held by each District Branch.

Meetings.—Mr. Anderson attended the usual meetings of various Council Committees, the meeting of the A.M.A. at Atlantic City, the Editors' and Secretaries' Meeting in Chicago in November, and the Health Officers' Meeting at Saratoga Springs in June.

Inquiries.—Office inquiries regarding war medicine and doctors in service were numerous during the year. A number of writers, editors, and radio directors applied for and received, information and advice during the year. This report will not be burdened with the details of these except to say that this contact work, which is the essence of public relations, has increased in 1942 over previous years.

Employees.—The turnover in employees in clerical and mechanical work has presented a number of difficult problems, the Army taking Mr. Harold McGinn, who has been in charge of our mimeographing for the past seven years. It has been found practically impossible to fill his place, and the other employees in the office pinch-hit to make the best of it on account of this essential vacancy. Miss Carita Holton went into defense work in a munitions plant in Ohio, and in her we lost an experienced, energetic, and loyal employee. The spirit maintained by those who remain with us in their eagerness to compensate for those who have gone into war work is especially commendable. The ability of the Public Relations Bureau to adapt readily to a series of war disruptions has been due to the resourcefulness of Miss Dorothy L. Kent.

Economies.—The auditor's report for 1942 shows a reduction in the cost of the Public Relations Bureau of \$6,805.75 during 1942; from \$21,438.90 in 1941 to \$14,633.15 in 1942. This saving is made up principally of the following economies: \$1,791.79 less for stationery, postage, and recordings; printing pamphlets and bulletins, \$2,205.24 less; and \$2,412.45 less for radio activities conducted in 1941 but not undertaken in 1942.

PART V

Nonprofit Medical Expense Insurance

The Subcommittee of the Council Committee on Public Relations and Economics has continued its work in this field with the same personnel:

Herbert H. Bauckus, M.D., *Chairman*.... Buffalo
Walter T. Dannreuther, M.D..... New York
William Hale, M.D..... Utica

In addition, at the request of this committee, the Council approved the appointment of an additional subcommittee to study and advise on this subject as it pertains to the metropolitan New York area and

the surrounding counties (17 in all). This personnel is:

William B. Rawls, M.D., *Chairman*.... New York
Walter T. Dannreuther, M.D..... New York
Abraham Koplowitz, M.D..... Brooklyn
Milton J. Goodfriend, M.D..... Bronx

The following is the report from this expanded subcommittee:

REPORT

This being the third annual report of this subcommittee, your Chairman begs permission for a few introductory remarks.

In taking stock of the activities of these three years, we must be able to evaluate positive as well as negative aspects of our work. On the positive side we note that today the principle of voluntary prepayment methods for medical care, sponsored by organized medicine, has become generally accepted. Three of the functioning plans in New York State received this year the official endorsement of the State Society. Scarcely anywhere is there a doubt left as to the usefulness of these plans. Harmonious working relations have at all times existed between the proponents of the plans and the New York State Department of Insurance and the Medical Society of the State of New York. For the last year the stage has been set for a successful performance.

It is here that we must take notice of some of the negative aspects. Despite the wholehearted support from the leaders of our State Society, there has been but little acceleration of the promotion of these plans by the members of the profession. This, to a great extent, accounts for the lack of interest on the part of the public, which in many instances knows little about the plans and has inquired little about them.

Fundamental principles and problems of reorientation regarding the role of the plans in the community—as they were outlined in the last annual report—were not applied in the desirable degree. Questions of consumer participation in the administration as a means of involving large groups were still left pending. The result, therefore, has been a negligible growth in number as compared with the potential subscriber group in an industrial state such as New York. Little initiative was shown by the respective administrative boards to relate the use of the plans to the need of widespread medical care as a necessary part in the war effort, and as a means of the democratic rationing of physicians for the largest possible group of people.

The country is looking toward our plans as a test of the workability of voluntary programs for medical care. Only concrete results in terms of figures of enrollment will be considered a valid argument. While there may be a number of good reasons for the delay of these results—such as reorganization, new forms of contracts, or adjustment of fee schedules—these must not continue to delay the growth of the plans at a time when the country as a whole is geared to the utmost speed and efficiency in all matters.

In reporting on the state-wide developments we want to mention first that nearly all District Branches featured a discussion of Medical Expense Indemnity Insurance at their annual meetings. The high level of these discussions showed that with only slight effort new inroads could be made in rallying the members around the promotion of the existing plans.

Since this exchange of thoughts brought out a widespread interest in the organization of a state-

thought of the Council and although he did not find the method practicable at the present, he would keep it on file. In the opinion of the Committee, some such plan may yet have to be adopted if the armed forces are to make a much greater drain on the medical profession of the country.

At the time of the gas embargo, your Committee Chairman and Dr. Irving endeavored to ease the situation for doctors by contacting the O.P.A. authorities. Help was promised, but the embargo terminated before any results were obtained. Again, when all gas sales were banned over a week end, the same two took the matter up and were assured that doctors would be permitted gas and that the embargo was not intended to prevent necessary use of cars by physicians.

When all car owners were restricted to the possession of only five tires per car, protests were received from certain upstate counties, and authority was desired for permission to keep snow tires in addition. Again, Dr. Irving and the Chairman interceded with the State O.P.A., inviting their attention to the fact that doctors had to make emergency calls, often at night, and that the time involved putting on chains might mean the difference between life and death. As a result, a ruling was issued permitting doctors to retain their snow tires.

The most important function of the Committee has been a liaison relation between the State Procurement and Assignment Committee and the County War Participation Committees, as well as the coordination of the activities of those committees.

The State Chairman of Procurement and Assignment, Colonel Kopetzky, resigned at the time of the last meeting of the House and was replaced by Dr. Henry W. Cave. He, in turn, was replaced by Dr. Joe R. Clemmons, and Dr. Cave became Chairman of the Second Service Area Committee, replacing Dr. Arthur W. Booth. Our contacts with all of these gentlemen have been most pleasant, and we have always found them most cooperative, anxious to serve the interests of the civilian population as well as to furnish a pool of physicians for the Army and Navy. Our thanks are expressed to them.

New York State has been criticized as lagging behind in furnishing its quota of physicians for the armed forces. Your Committee feels that this is to a large extent unjustified. A survey conducted on July 1 proved that there were more men in service than the number for which we had been given credit. In addition, several thousand men had been cleared by their local committees who had not been examined or called. On September 1 another survey was conducted which indicated that considerable progress had been made and that New York would probably reach its quota by the end of the year.

A later estimate of the situation is somewhat confused. The National Committee gave us credit, on January 1, for having only 6,900 doctors in service, whereas our quota was 8,600. However, their figures were admittedly six weeks behind, and, furthermore, no credit had been given to us for men entering the United States Public Health Service. Inasmuch as many men who were already in service and had been for some time, were still receiving requests to report for examination, it is apparent that 6,900 was not a fair estimate of the situation. Your Committee believes, on this evidence it has at hand, that New York has practically met its quota.

The quota for 1943 was set at 3,900, but this included the 1,700 supposed not to have been met in

1942, or approximately 2,200 additional men called for. This quota will have to be met largely from the metropolitan areas, as the other areas have already been stripped of all physicians who can be spared. There are over 3,000 noncitizen physicians in the state who are not eligible for commissions, and, while these have been included in our medical population, the fact that they cannot be used in supplying our quota has not been considered. Hence, it will be difficult to find 2,200 additional physically qualified physicians who can be spared. It must be done, however.

At the request of your Committee, Dr. Joe R. Clemmons, State Chairman of Procurement and Assignment, made a trip upstate to interview the County Society Committees. He was accompanied by Dr. Irving, who represented the chairman of the State Society Committee. This trip was productive of much good, in that it cleared up many misunderstandings and difficulties. There had been a tendency upstate to declare physicians available without consideration of the local needs. Originally, Procurement and Assignment was set up with a chairman and a vice-chairman, and the state was more or less divided between them. This led to confusion and conflict of policy. The Society owes a debt of gratitude to Dr. Don S. Childs, the former vice-chairman, for his conscientious, painstaking work, but it is felt that the situation will be handled in the future with greater satisfaction to all and with less confusion, with one man responsible for the whole state. Hence, there is now a chairman and no vice-chairman.

A further survey has been made to determine how many areas are in need of physicians. This survey revealed that 38 physicians could be used in rural areas. However, most of these areas never have had physicians, and it is doubtful whether a physician could make a living in most of them because the population is scattered and neighboring communities are called in for medical care. Therefore, very few physicians are actually needed for relocation, and Dr. Clemmons is endeavoring to supply those places in need from a pool he has available. Certainly New York State does not need to import physicians from other states. While we may have difficulty in supplying our military quota, we have an ample number of physicians who have either been rejected physically, or who are not eligible for commissions, to furnish any needed replacements within the state and possibly to relieve shortages in other states if called upon.

Your Committee does not approve of lowering the high standards of New York State in order to permit physicians from states with less high standards to come in and practice, and in our opinion it is not necessary. However, in order to meet any possible emergency, and to cooperate with the Man Power Commission, a bill has been introduced into the legislature at the instance of the Mailer Commission. This bill provides, in substance, that during the emergency the Governor may declare emergency health and sanitation areas within the state, and the Commissioner of Health, in cooperation with the local board or boards of health or welfare agencies, is empowered to designate, appoint, employ, and supervise such necessary medical and health personnel and to take such other steps as may be required to meet such inadequacies as may exist.

This gives no one the right to practice medicine permanently, and the law will automatically terminate with the emergency. It is merely a reasonable extension of existing authority granted to the

You can readily understand that the chairmen of the county legislative committees had that feeling, *when you learn that, with odds against them, they met in Albany on February 19 and held again their annual conference.* It took seventeen hours to travel from Buffalo to Albany; only local doctors of Albany used their automobiles.

Meetings and telephone conversations have taken place with different groups or individuals keenly interested in legislative problems.

At the conference in Albany, 33 of the 61 county medical societies were actively represented. Our Executive Officer, Dr. Joseph S. Lawrence, issued, on February 20, Bulletin No. 4, in which was a comprehensive detailed recital of the actions taken by the conference on all bills discussed. This Bulletin is already in the hands of all those known to be interested. Dr. Lawrence is willing to send a copy to anyone upon request. Your Legislative Committee, with the Executive Officer, numbers only four, but including the county legislative committees, it is of great strength and numbers. Will you not personally consider what a magnificent job could be accomplished if every member—every one of you—took some part in promoting desirable legislation? If you have any questions or any requests, if you have any information to be transmitted, will you not immediately contact either Dr. Lawrence, any member of the State Legislative Committee, or the chairman of your county committee? Cooperation is being given. We appeal especially for cooperation and coordination, a relation of purpose and action, resulting in true harmony. Your legislators and your political leaders, the real "county bosses," are ready and willing to meet with you. A timely discussion may very well bring about their active support. Queens County arranged a dinner conference, and the real political leaders and legislators attended. If you are holding such conferences, please write in about them.

Since the meeting of the House of Delegates, time and interest have been given to prepare legislation helpful to the Procurement and Assignment Committee for the purpose of studying the problem of providing physicians for districts inadequately supplied with medical care. The various states have been asked to lower their educational standards, allowing real reciprocity, and so permitting the Procurement and Assignment Service to move the doctor at will. The *Mahoney-Mauller Bill* was drafted to save the standards of New York State and to contribute valuably to the Federal Government's problem. This bill permits the Governor to handle any problem of inadequacy which may arise and so makes it unnecessary for physicians from other states to practice even temporarily in New York State, relieving the Federal government of all concern.

The *Beveridge Report* is obtainable, and if you have not already read it, you should do so at once. Dr. Lawrence has accumulated many facts relative to socialized medicine, and we hope that he will shortly submit them to all of us, so that we may compare these facts concerning New York State medicine with the *Beveridge Report*.

The *Sullivan X-ray Bill As. Int. 97*—as introduced—all of us can wholeheartedly support. The bill would declare radiology the practice of medicine and would exclude those practicing radiology who are not physicians. But this bill has been amended. Various individuals and groups, laboratories and chiropractors, outside the practice of medicine, are to be favored. All engaged in practicing radiology

up to the time this bill takes effect, if passed, will be excepted from the effect of the law. Does this amendment not defeat the very purpose of the bill?

Constant inroads in the practice of medicine! Constant lowering of educational standards! The best thought and effort of the highest type of citizens, ruthlessly put aside or depreciated!

The physiotherapists very modestly wish to practice physiotherapy (not to administer drugs but to practice medicine without the supervision of a duly licensed physician except in the treatment of quarantinable diseases). Originally, this was a group of only 25 qualified technicians permitted to become registered physiotherapists. It has grown to the large number of 468 registered and not necessarily qualified, 418 without examination.

They confide that they have been learning diagnosis from the many physicians who have prescribed physiotherapy for their patients and referred the cases to them. Who are these many physicians who have been supervising the physiotherapists? Or have they not rather been practicing without the law?

At the time of the Annual Meeting of the State Medical Society you will receive a later, detailed, supplementary report.

PART VIII

War Participation

The Council transmits with approval the following report of its Committee on War Participation. The Committee was reorganized immediately after the meeting of the House of Delegates in April, 1942, and the following personnel were appointed:

Louis H. Bauer, M.D., *Chairman* . . . Hempstead
Henry W. Cave, M.D. New York City
Norman S. Moore, M.D. Ithaca
Samuel J. Kopetzky, M.D., *ex officio*, New York City

The Committee, originally known as the "Medical Preparedness Committee," changed its name, by vote of the Council in January, 1943, to the "War Participation Committee." This was done at the request of the American Medical Association Committee, in order that all similar committees should have the same name.

REPORTS

Few formal meetings of the Committee were held, but much work has been entailed, nevertheless. There have been constant requests from Selective Service Headquarters to replace physicians no longer available on local Selective Service Boards and Advisory Committees to those Boards. All of these have been cleared through the respective County Society Committees before recommendations for appointments have been made. This work has been handled almost entirely in a routine fashion by Dr. Irving's office, with reference to the Chairman of the Committee only when a more controversial point was at issue. This has speeded action and has saved the Committee a tremendous amount of work. The Committee is very grateful to Dr. Irving and his staff for their wholehearted cooperation.

The report for the Economical Use of Medical Personnel submitted to the last House was forwarded by the Council to the Surgeon General of the Army, who replied that he appreciated the

decreasing the number of days lost through illness or fatigue. The industrial physician will have to give more attention to the problems of accident prevention and the determination of occupational disease, which are important factors in maintaining our industrial plants at maximum efficiency levels. Physicians treating compensation accidents and illness should constantly bear in mind the vital importance of returning patients to work at the earliest possible moment consistent with proper treatment and the safety of the individual.

Estimate the need for additional Industrial Health Service. Recommendations of Council on Industrial Health, A M A.

- A. A note should be sent to industry throughout the State, preferably by the executive secretary of the State Chamber of Commerce of the State Manufacturers' Association, that if a plant contemplates additional medical service, application for personnel should be made to the County Medical Society Committee on Industrial Health, which in turn should.

1. Decide whether the need is valid
2. Decide whether the need can be met locally

The crux of the whole voluntary plan rests on the ability to exhaust local resources first. Certainly such a procedure involves least dislocation of physicians.

- B. If no local resources are available, the request should be referred to the State Chairman of Procurement and Assignment, who, with the help of the State Committee on Industrial Health and other agencies listed above, will attempt to locate and assign the nearest competent volunteer.

- C. If no resources exist in the State, the regional or national Procurement and Assignment Service may be helpful, or the Council on Industrial Health of the A M A can act as a clearing house for placement of physicians in industry.

X-ray Examinations.—The advisability of setting up examining boards for applicants for radiology ratings has been amply proved by the results of examinations held in the metropolitan area during the past two years. Six examinations were held in 1942, and 20 applicants were examined. Of these, 6 passed the examination, 14 failed, and one applicant, on learning the scope of the examination, withdrew. It is extremely important that physicians should be thoroughly qualified before receiving a rating either for diagnostic or therapeutic radiology. Workmen's Compensation Boards should not grant a radiologic rating merely on the basis of possession of apparatus or the fact that the physician holds himself out to be experienced in this field. Radiology requires thorough training and extended experience. The opinion of the radiologist is of prime importance in diagnosis and unless such opinion is based upon thorough training and extended experience, the treatment of the claimant as well as the adjudication of the claim for disability may be improper. The results of the examination show that the majority of physicians who apply for examination are not well prepared. It seems, therefore, that the county Society Compensation Boards should not grant a rating in radiology unless the applicant for such rating measures up to the standards set by the State Committee as a guide to the local county committees. Furthermore, unless it can be shown that the individual has had some experience and basic train-

ing in radiology, he should not be encouraged to submit to the examination. The State Committee is prepared to offer the services of expert examiners to local county medical societies on request.

The radiologists who have served as an examining committee in the metropolitan area deserve the thanks and appreciation of the profession for the manner in which they have conducted these examinations during the past few years.

Specialty Ratings.—In other specialties it is becoming apparent that the granting of specialty ratings must be based upon high standards. While the diploma of the National Boards may be accepted as evidence of qualification, the local county society boards may require, in addition, evidence of experience in private practice before granting specialty ratings. The standards set up by the State Committee as guides to local county medical society committees provide for the acceptance of the diploma of the National Boards, where such boards require a practical as well as a theoretic examination. In the larger cities active affiliation with hospital services in an independent position is frequently one evidence of qualification. However, there is no uniformity of hospital position nomenclature. A full attendingship in one institution may imply less qualification and experience than a minor attending position in another institution. Consideration should be given to the size of the hospital, the amount of work assigned to the applicant, and the question of whether this work is performed with or without supervision. During the past few years it has become necessary for certain compensation boards to ascertain the technical ability of a physician applying for a rating in one of the surgical specialties, especially where such individual was not actively connected with a recognized hospital. Members of the Board itself, or of its advisory qualifying committees, in the specialties, were appointed to witness one or more operations performed by the applicant and to inquire into the manner of preparing the case, and diagnostic procedures and diagnostic inquiry, in addition to the reporting of facts concerning the individual's training, hospital internship or residency and experience, a rating was given or denied. It is recommended that this procedure be adopted more widely in order that a rating be not given to an applicant not thoroughly prepared both from a theoretic and practical aspect.

Ratings of Refugee Physicians.—The question of the granting of ratings to refugee physicians has required considerable thought. Where such refugee had an outstanding reputation, and his ability and character were well known, and adjudged satisfactory by the compensation committee or board, a rating was given, provided the individual had become associated with one or more hospitals and had become experienced in American methods of medical practice. In most instances, however, it has been impossible to verify the credentials and qualifications of such foreign physicians, as expressed in their application blanks. Until such physicians become associated with local hospitals and dispensaries and their professional qualifications can be scrutinized by competent and objective physicians, it is impossible to grant them specialty ratings. The same standards that apply to American physicians should apply to the qualification of refugee physicians, but the boards may require, particularly for specialty ratings, that the physician's qualifications be verified by personal contacts in this State.

Symbol Ratings.—For a number of years we have recommended simplification of ratings. This matter

Governor a year ago, and will cover any possible, unforeseen emergency which could arise from the war; yet it does not open wide the doors for ill-trained personnel, now or in the future, and hence protects the public in two ways—first, by providing for possible shortages of medical care and by insuring the public adequate care by properly trained and supervised personnel.

Your Committee recommends:

1. That all County Medical Societies continue their War Participation Committees and that they function in close liaison with the State Committee and with Procurement and Assignment.
2. That these Committees see to it that industrial plants be adequately safeguarded from a medical standpoint.
3. That these Committees safeguard civilian welfare as well as furnish a pool for the Army and Navy.
4. That hospital staffs and teaching institutions be protected by declaring minimum necessary personnel as "essential."
5. That shortages in medical personnel developing from general increases in population or from expansion of industrial plants be reported promptly to Procurement and Assignment so that such shortages may be relieved.
6. That the Committees representing those Counties which have not yet met their quotas take every step possible to induce eligible physicians to enter the service so that New York may meet whatever demands are made upon it.
7. That all physicians be urged to do welfare work regardless of whether or not they have done so heretofore so that the indigent population may not be neglected but will continue to receive the medical care that the Society has always insisted they have.
8. That the Society give a vote of thanks to Dr. Henry W. Cave and Dr. Joe R. Clemmons for their wholehearted cooperation with the State Society and for their eminent fairness in handling their difficult assignments.

PART IX

Workmen's Compensation

The State Committee on Workmen's Compensation—Dr. Clarence G. Bandler, New York City, *chairman*; Dr. Joseph C. O'Gorman, Buffalo; and Dr. David J. Kaliski, director, New York City (also director of the Workmen's Compensation Bureau)—has presented the following report which is submitted with the approval of the Council.

Owing to the necessity of conserving space, this year, the report is condensed and abbreviated, and a more complete report will be prepared and presented to the House of Delegates.

REPORT

Number Qualified.—To date 20,166 physicians have been qualified and recommended for license by the county medical societies' Compensation Boards. In addition, 297 physicians have been qualified by the Homeopathic Board and 372 by the Osteopathic Board.

The number qualified in each county follows:

Albany, 301; Allegany, 42; Bronx, 2,086; Broome, 222; Cattaraugus, 82; Cayuga, 71; Chautauqua, 114; Chemung, 01; Chenango, 41; Clinton, 48; Columbia, 42; Cortland,

43; Delaware, 53; Dutchess, 150; Erie, 1,028; Essex, 36; Franklin, 67; Fulton, 68; Genesee, 54; Greene, 43; Herkimer, 60; Jefferson, 109; Kings, 3,662; Lewis, 23; Livingston, 50; Madison, 41; Monroe, 542; Montgomery, 62; New York, 5,336; Nassau, 539; Niagara, 176; Oneida, 237; Onondaga, 420; Ontario, 103; Orange, 165; Orleans, 29; Oswego, 74; Otsego, 66; Putnam, 16; Queens, 1,316; Richmond, 137; Rensselaer, 134; Rockland, 97; Saratoga, 70; Schenectady, 120; Schoharie, 30; Schuylar, 15; Seneca, 27; Steuben, 89; Suffolk, 202; Sullivan, 71; St. Lawrence, 94; Tioga, 40; Tompkins, 71; Ulster, 110; Warren, 58; Washington, 50; Wayne, 67; Westchester, 882; Wyoming, 45; and Yates, 27.

Physicians in the War.—The number of physicians available for compensation practice has been depleted by the entrance of many physicians into the armed services. Up to the present time we have no knowledge of any shortage of physicians available for compensation practice in any part of the State. A number of Federal projects have been in operation throughout the State for the construction of camps and other military and naval establishments which have caused temporary derangement in the quota of physicians in particular areas. Most of these, however, have been completed or are in process of completion.

Aside from the increase in the civil personnel of these establishments there will be no great strain on the medical resources of the areas involved. Owing to the increase in industrial activity incident to the war effort in many parts of the State there has been a considerable increase in industrial accidents and, to a lesser degree, of occupational diseases. Our reports indicate that in certain areas this may amount to 35 or 40 per cent, but we are pleased to note that there is adequate medical personnel to cover the situation. Most of the medium- and larger-sized industrial establishments have recognized the advisability of providing medical supervision for the plants; and there has been an increased demand for physicians who have had training in industrial medicine and surgery, including the broader fields of disease and accident prevention, safety methods, etc.

There is a growing demand for physicians who have had special training in this relatively new specialty, and recognition of this fact has led to an increase in postgraduate special courses on the part of various universities and colleges. The State Medical Society and the local county societies have given increasing attention to educational programs designed to acquaint physicians with industrial medicine and to prepare them better for the control and supervision of industrial establishments. It is important to recognize the need for closer cooperation between employers and representatives of the public, including Labor, with the medical profession to the end that greater attention be given to the health and welfare of industrial workers. The greater participation of women in industry and the tendency to employ handicapped individuals and persons beyond normal working age are added factors in determining the need for closer medical supervision, not only of the large- and medium-sized industrial establishments but also of the smaller ones which, up to the present time, have not given much attention to the health of workers. It is of vital importance at this time that the health of workers be kept at the highest possible level in order to avoid loss of time due to illness. Absenteeism has been attributed in some part to illness, but there is no proof that such loss of time is not due in a larger measure to factors other than illness. The problem of nutrition of the working people has come to the forefront and is of vital importance in maintaining the highest level of working efficiency and in

is, of course, the Department of Labor through referees or the Industrial Board. But some other mechanism such as suggested must be devised to meet the situation created by the nonfiling of so many bona fide claims for medical care in no-lost-time cases.

Medical Bills in "Noncompensable" Cases.—Under date of February 9, 1943, Mr. Ralph R. Boyer, Director of the Division of Workmen's Compensation, addressed a letter to Mr. Henry D. Sayer, General Manager of the Compensation Insurance Rating Board, bringing the problem of resolving disputes as to medical bills in the noncompensable type of accident (no time lost, less than seven days lost, no file indexed) to his attention, and requesting a conference of all parties of interest with the insurance carriers and self-insurers, at which time the problem could be considered fundamentally. A date for this conference has not as yet been set.

Arbitrations.—Under the provisions of Section 13-g of the Workmen's Compensation Law, arbitration is provided when a carrier or employer has objected to the value of the doctor's services within the period of thirty days of the submission of the bill. The law as now worded does not force an employer to arbitrate a disputed bill nor does it provide any way of collecting such a bill should the employer refuse to arbitrate. While it is true that most insurance carriers do avail themselves of the opportunity of arbitration, this practice is less common among self-insurers and particularly among municipalities and other smaller communities which are self-insured and are subject to the provisions of the Workmen's Compensation Law.

Only recently have we been able to obtain the cooperation of the Board of Transportation of the City of New York to submit to arbitration. In many instances in which self-insurers have failed to object to a bill within thirty days in a compensable case and the bill, under Section 13-g, is presumed to be the fair and reasonable value of the services rendered, the bill is not collectable without court action.

We again urge an amendment to this section of the law as suggested by the Law Reform Committee of the Bar Association and introduced into the Legislature in the year 1941-1942. This bill failed of passage, but we understand that it will again be introduced this year. Its passage should be facilitated in every way, as it removes from litigation, through the civil courts, many bills, especially those small in amount.

For a number of years we have urged that no physician permit a carrier or employer to reduce a bill and offer an amount in settlement that is not consistent with the services rendered and the fees allowed by the fee schedule. We have also urged that no employer be permitted to take the 5 per cent discount for payment within thirty days of the receipt of bill when the bill is paid after the lapse of this period. We have requested physicians to bring to the attention of this Bureau specific instances of such action on the part of employers or carriers so that this abuse can be corrected. The threat of arbitration should not deter a physician from demanding full payment where the bill is a just one and in accordance with the fee schedule. Few responsible insurance carriers indulge in this practice, and all instances of this sort reported to this office will bring prompt amelioration.

Arbitration is an equitable procedure devoid of delay and fair to both sides. It removes from the civil courts numerous controversies over the value of medical services which are best determined by an

arbitration board of practicing physicians and specialists familiar with medical practice and with the compensation law. It is our opinion that arbitration is not sufficiently resorted to by employers and carriers, especially in the case of certain physicians whose bills are regularly objected to but rarely arbitrated. An investigation is now being conducted to determine upon what basis such bills are settled and how frequently the bills of certain physicians are settled without arbitration. Insurance carriers and employers should have a greater interest in submitting bills that they consider inequitable and improper to the scrutiny of the arbitration committee, rather than settling them under these circumstances. While it is not the function of the arbitration committee to do more than determine the reasonable value of the physician's service in accordance with the spirit and letter of the Workmen's Compensation Law and the fee schedule, the presence at arbitration of physicians, repeatedly, would enable the County Compensation committees to take such action as they deem proper and in accordance with the provisions of the law, should any improper practice be revealed.

It has been stated that the threat of arbitration has deterred certain physicians from treating compensation cases to the extent that such cases deserve, but it is not believed that this is often the case. Experience shows that most physicians, once they have accepted a patient for treatment under the Workmen's Compensation Law, fulfill their responsibilities to the claimant, even though at times some may be charged with unduly prolonging treatment.

Insurance carriers and employers should be made to conform to the rules of the Department of Labor regarding the informing of physicians of results of their medical examinations in the event that the carrier or employer believes the treatment should be stopped. This matter was gone into in detail in our previous reports, but we have reason to believe that employers and carriers still do not always state the reasons for refusing to authorize further treatment in protracted cases where their medical examination reveals that no further treatment is necessary. Unquestionably, prompt hearing before the Department of Labor and the avoidance of postponement or adjournment of hearings would materially curtail treatment in certain types of cases. The physician has an obligation to treat a patient until he has recovered from his injury or has reached the maximum benefit to be obtained from medical care. The constant postponement of hearings and the putting off of the determination of the degree of disability undoubtedly frequently of treatment until the Department of Labor has reached a verdict. A physician alone should not be made to carry the onus of prolonging treatment where the dilatory actions of others are to blame. We have frequently urged physicians not to use physical therapeutic procedures when such procedures are not indicated or when they have reached their maximum efficiency in the rehabilitation of the claimant. It is especially important when our country is at war that manpower be conserved and that time lost from work be reduced to the minimum. The procedures in the Department of Labor, as well as in the physician's office, should be mobilized to return the worker at the earliest possible moment to his former occupation or to some other useful occupation in accordance with his physical status.

During the year 1942 there were held 89 arbitration sessions in the metropolitan area and 11 in other

was taken up in great detail in our report of 1942. Symbol M-17 has now been designated for the sub-specialty of thoracic surgery and standards of specialty qualifications have been drawn up to cover this field.

Special Communications.—On May 27, 1942, Bulletin No. 44 was promulgated, dealing with the necessity for physicians applying for x-ray examinations to have had a definite amount of training in this field before being certified for examination by the county medical society Compensation Boards or committees.

Unpaid Bills, Claimant Absent at Hearing.—On July 10, 1942, Bulletin No. 45 was issued, requesting information from physicians throughout the State as to the number of bills withheld from payment by employers or insurance carriers because the claimant did not appear at a hearing to determine the compensability of the workingman's claim. Attention was drawn to the fact that numerous employees who had suffered accidents might be inducted into service before controversial claims were adjudicated by the Department of Labor, and that physicians should attempt to ascertain this fact in order to facilitate prompt action on the claim by the Department of Labor by notifying the Department of Labor of the possibility of the early induction of the claimants. Furthermore, numerous claimants were either inducted into the service or left the State to work in defense plants in other parts of the country and were not available for hearings. It was hoped to ascertain the number of such bills outstanding. It is believed that the number is substantial, but as yet we have not obtained definite figures. In this connection we have been informed that the number of compensation cases open and pending before the Division of Workmen's Compensation in New York City increased from 46,477 at the end of 1940 to 54,567 on December 31, 1941. This increase of a little more than 8,000 open cases is equivalent to the work normally accomplished by two full-time referees.

During the year 1940 approximately 1,348,000 papers were received by the Department; during the year 1941 this number increased to 1,542,000. Those papers for which there were no cases indexed were filed in what is called "no claim file." The amount of correspondence, reported accidents, etc., in these files has grown tremendously. (Accidents reported for the year 1942 aggregate of 713,741 as compared with 635,983 for the year 1941.) Finally, when the case folder is assembled it is necessary to search the "no claim file" to collect all the papers previously received. This requires considerable time and personnel and accounts in a measure for the increase in the number of cases on which no hearing is held.

In other words, unless a claimant insists upon a hearing in a no-lost-time case, the case may be closed without the actual determination of compensability of the claim. In a majority of these cases the insurance carrier or employer, having received the report of an accident from the employer, usually pays the doctor's bill. During the past year or two, however, there has been a tendency on the part of certain insurance carriers not to pay such bills and in some instances even to submit a controversy form requiring a hearing, knowing that in some instances the employee will not want to waste a day's pay to attend a hearing or is not available for a hearing. In many instances it has been necessary to demand payment for medical services from the individual, and this in turn forced the claimant to file a claim to arrange a hearing so as to have his medical bill paid by the

carrier if said claim was declared compensable.

On December 10, 1942, your Director addressed a letter to the former Industrial Commissioner, Miss Frieda Miller, bringing all these facts to her attention and requesting an investigation of the Department of Labor in regard to their policy of not filing more forms (indexing files), especially in no-lost-time cases where medical services had been rendered. Your Director urged an agreement with the insurance carriers and employers to pay all such bills in no-lost-time cases, or to arbitrate them where there were sufficient grounds for arbitration; failing which all such cases should be placed on the calendar for a hearing. The Industrial Commissioner replied on December 24, requesting further information as to the number of cases involved and felt that the problem should be approached from a factual basis in order to determine the stature of the problem. Incidentally, our records indicate that we have been concerned with this problem since the very beginning of the amended law in 1935 and have had numerous hearings before the Commissioner on this question, but to no avail.

It was frequently brought to the attention of the Department of Labor that the referees, in closing cases, frequently used the expression "Disallowed—disability less than seven days," or "Case closed—no wages lost." It was felt that this was not a proper action, for under the provisions of Section 25 an award must be made to reimburse the employer if such reimbursement is requested or, in the alternative, to reimburse the claimant therefor. On February 14, 1941, the Industrial Board adopted a resolution which instructed referees that in all cases in which disability was less than seven days they should make the following finding: "No compensation due—disability less than seven days—case closed." This implied that no compensation was due for time lost in excess of seven days, but that there might be an outstanding bill for medical services. Your Director urged additional action to the effect that the referee in every case should ascertain before closing the case whether medical treatment had been rendered and to add to the phrase "no compensation due" the additional phrase, "bill for medical care pending." This would indicate to the insurance carrier that such bill, if not already paid, was pending, and under these conditions the carrier should be urged to pay the bill or to demand a hearing on the question of the necessity of the medical care rendered or its relationship to the accident sustained. It should be borne in mind that the cost of medical care as indicated by the medical bill for services rendered is as much a part of the "compensation" due the claimant as is payment for time lost and has been so held by the highest courts of this State. Physicians therefore should look through their files and report to this office all cases which have been closed without payment of medical bills on the part of the employer or insurance carrier.

The only possible solution of this problem, should the Department of Labor find it impossible to extend its facilities to include such claims, would be to enlarge the scope of arbitration procedures in order to include outstanding bills in all cases in which accident was reported but no case index was filed by the Department of Labor where the employer or insurance carrier did not dispute the accident or notice. This would leave to the arbitrators the determination of the necessity for medical care, causal relationship, etc., should these points be raised by the employer or insurance carrier. The proper place for the determination of issues of causal relationship

is, of course, the Department of Labor through referees or the Industrial Board. But some other mechanism such as suggested must be devised to meet the situation created by the nonfiling of so many bona fide claims for medical care in no-lost-time cases.

Medical Bills in "Noncompensable" Cases.—Under date of February 9, 1943, Mr. Ralph R. Boyer, Director of the Division of Workmen's Compensation, addressed a letter to Mr. Henry D. Sayer, General Manager of the Compensation Insurance Rating Board, bringing the problem of resolving disputes as to medical bills in the noncompensable type of accident (no time lost, less than seven days lost, no file indexed) to his attention, and requesting a conference of all parties of interest with the insurance carriers and self-insurers, at which time the problem could be considered fundamentally. A date for this conference has not as yet been set.

Arbitrations.—Under the provisions of Section 13-g of the Workmen's Compensation Law, arbitration is provided when a carrier or employer has objected to the value of the doctor's services within the period of thirty days of the submission of the bill. The law as now worded does not force an employer to arbitrate a disputed bill nor does it provide any way of collecting such a bill should the employer refuse to arbitrate. While it is true that most insurance carriers do avail themselves of the opportunity of arbitration, this practice is less common among self-insurers and particularly among municipalities and other smaller communities which are self-insured and are subject to the provisions of the Workmen's Compensation Law.

Only recently have we been able to obtain the cooperation of the Board of Transportation of the City of New York to submit to arbitration. In many instances in which self-insurers have failed to object to a bill within thirty days in a compensable case and the bill, under Section 13-g, is presumed to be the fair and reasonable value of the services rendered, the bill is not collectable without court action.

We again urge an amendment to this section of the law as suggested by the Law Reform Committee of the Bar Association and introduced into the Legislature in the year 1941-1942. This bill failed of passage, but we understand that it will again be introduced this year. Its passage should be facilitated in every way, as it removes from litigation, through the civil courts, many bills, especially those small in amount.

For a number of years we have urged that no physician permit a carrier or employer to reduce a bill and offer an amount in settlement that is not consistent with the services rendered and the fees allowed by the fee schedule. We have also urged that no employer be permitted to take the 5 per cent discount for payment within thirty days of the receipt of bill when the bill is paid after the lapse of this period. We have requested physicians to bring to the attention of this Bureau specific instances of such action on the part of employers or carriers so that this abuse can be corrected. The threat of arbitration should not deter a physician from demanding full payment where the bill is a just one and in accordance with the fee schedule. Few responsible insurance carriers indulge in this practice, and

reported to this office will

Arbitration is an equitable procedure devoid of delay and fair to both sides. It removes from the civil courts numerous controversies over the value of medical services which are best determined by an

arbitration board of practicing physicians and specialists familiar with medical practice and with the compensation law. It is our opinion that arbitration is not sufficiently resorted to by employers and carriers, especially in the case of certain physicians whose bills are regularly objected to but rarely arbitrated. An investigation is now being conducted to determine upon what basis such bills are settled and how frequently the bills of certain physicians are settled without arbitration. Insurance carriers and employers should have a greater interest in submitting bills that they consider inequitable and improper to the scrutiny of the arbitration committee, rather than settling them under these circumstances. While it is not the function of the arbitration committee to do more than determine the reasonable value of the physician's service in accordance with the spirit and letter of the Workmen's Compensation Law and the fee schedule, the presence at arbitration of physicians, repeatedly, would enable the County Compensation committees to take such action as they deem proper and in accordance with the provisions of the law, should any improper practice be revealed.

It has been stated that the threat of arbitration has deterred certain physicians from treating compensation cases to the extent that such cases deserve, but it is not believed that this is often the case. Experience shows that most physicians, once they have accepted a patient for treatment under the Workmen's Compensation Law, fulfill their responsibilities to the claimant, even though at times some may be charged with unduly prolonging treatment.

Insurance carriers and employers should be made to conform to the rules of the Department of Labor regarding the informing of physicians of results of their medical examinations in the event that the carrier or employer believes the treatment should be stopped. This matter was gone into in detail in our previous reports, but we have reason to believe that employers and carriers still do not always state the reasons for refusing to authorize further treatment in protracted cases where their medical examination reveals that no further treatment is necessary. Unquestionably, prompt hearing before the Department of Labor and the avoidance of postponement or adjournment of hearings would materially curtail treatment in certain types of cases. The physician has an obligation to treat a patient until he has recovered from his injury or has reached the maximum benefit to be obtained from medical care. The constant postponement of hearings and the putting off of the determination of the degree of disability undoubtedly frequently requires continuation of treatment or observation by the attending physician until the Department of Labor has reached a verdict. A physician alone should not be made to carry the onus of prolonging treatment where the dilatory actions of others are to blame. We have frequently urged physicians not to use physical therapeutic procedures when such procedures are not indicated or when they have reached their maximum efficiency in the rehabilitation of the claimant. It is especially important when our country is at war that manpower be conserved and that time lost from work be reduced to the minimum. The procedures in the Department of Labor, as well as in the physician's office, should be mobilized to return the worker at the earliest possible moment to his former occupation or to some other useful occupation in accordance with his physical status.

During the year 1942 there were held 89 arbitration sessions in the metropolitan area and 11 in other

parts of the State. In the metropolitan area, 688 cases were arbitrated; up-state 51 were arbitrated. In a total of 739 bills, arbitration awards were held in all but 52. The amount in dispute in the metropolitan area was \$70,816.98, and the awards totaled \$37,879.48. This includes the cases in which no awards were made. In the upstate areas the amount in dispute was \$5,744.10, and the amount awarded, \$3,052.

It is interesting to note that the amount of the awards, including those cases in which no awards were made, ran close to 50 per cent in all areas of the State. This means that many bills were paid in full, others only in part. In numerous instances, part of the bills had been paid before arbitration and the balance subjected to arbitration. In 516 instances, bills scheduled for arbitration were settled at the time of arbitration without the necessity of a hearing.

Qualifications of Physicians.—The reader is referred to our report of last year, and to the report of the year prior to that, on the question of limited qualifications.

Wherever in the fee schedule the rule calls for payment of a fee to a "specialist" there arises a situation as to how the practitioner with a limited specialty rating, not a so-called "full specialist," shall be paid.

In view of the fact that the fee paid to a surgical specialist for a complete examination or consultation is a minimum of \$10.00, it is our opinion that where a surgeon with an XA rating is qualified to act as consultant and to accept patients from other physicians for operations, he should, when acting in this capacity, receive the same fee as the consultant with the SA rating. He should also receive the fees stipulated in the schedule for various surgical procedures. The question arises as to the fairness of the previous limitation by agreement of referrals to SA men only. In view of the shortage of physicians in various parts of the State, and, further, because of the fact that an "A" rating requires high surgical qualifications according to our standards, consideration must be given to a revision of our rules, which have applied particularly to the larger cities, on the limitation of referrals and consultations to men with the SA rating.

Since the XA surgeon is well qualified, although not as experienced in all instances as the SA surgeon, we believe that for the average uncomplicated surgical condition the services of the XA man should be made available, especially for such operations as herniotomies. No surgeon has been or should have been given an XA rating who is not qualified to operate on such a case. Otherwise, he is not entitled to the XA rating. Furthermore, it would seem that our rule permitting a surgeon with an XA rating to operate on patients who come to him directly but not to accept referred cases is ambiguous. If the XA surgeon is competent to operate on a hernia patient who comes to him directly, he is just as competent to operate on this type of patient referred to him by another physician. Occasionally there may be doubt as to the qualification of the XA man to accept for consultation or treatment a certain patient. On the whole, this question would have to be decided in nonemergencies by reference to the county society Compensation Committee which has qualified the physician. They are in possession of all the credentials and know his limitations. The employer or insurance carrier may learn with dispatch whether, in the opinion of the compensation board which qualified him, the particular physician is experienced enough to cope with a certain situa-

tion. It is recommended that this practice, which is now frequently used in the large cities, be more universally adopted.

Since the fees for specialists in branches other than surgery are higher for the specialist than for the limited specialist, the question frequently arises as to what fees to pay an XE man, for example. If a physician so qualified treats an eye condition, should he be paid the specialist rates for consultation and operation, or a part of these fees? It is our opinion that the same rule that applies in regard to consultations and referred cases should apply in the case of the XE man. The ophthalmologist must be qualified in order to obtain the XE rating. In rural areas where the XE man is often the only ophthalmologist available, we believe he should be paid the full specialist's fee for all work done within his specialty, including operative procedures. Here again the XE rating should not be given unless the physician, although not always confining himself exclusively to his specialty, is well qualified in accordance with the standards set up for ophthalmologists. In a large measure the same rule should apply to other physicians who have been given limited qualifications based on the extent of special practice rather than upon the limitation of professional ability. We know that certain insurance carriers have been in the habit of settling bills of certain XE men in large cities by paying them a fee of \$5.00 for the first examination, the full fee for operative procedures, and regular practitioners' rates for subsequent visits. The question arises whether this practice should not be stopped and full payments made where the services are satisfactory.

Physicians who have been given limited qualifications in the various cities should prepare themselves for the obtaining of full specialty ratings as soon as possible and in accordance with the rules of qualification laid down by the county medical societies' compensation boards. In rural areas where physicians are thoroughly qualified the compensation committees might consider granting full specialty ratings, even though the specialist does a small percentage of work outside his specialty. In these circumstances a good rule to follow is to base a decision as to the specialist rating on whether the individual is regarded by his colleagues as especially qualified and is a consultant in his specialty in private practice. Nobody knows this better than the local compensation boards in the smaller counties.

Consultation or Complete Examination Fee Before Operation.—A certain insurance carrier fairly regularly objects to paying a fee for a complete examination by a surgeon examining a referred or direct patient in whom operation is subsequently deemed advisable and the operation is performed by the consultant. It is our opinion that such fee is justifiable and not included in the operation fee. Where the examination was required and was complete as indicated in the schedule, the surgeon or other specialist should be paid as if the consultation or examination were unconnected with the subsequent operation.

Administrative Procedure—Department of Labor.—We would again strongly urge that the Department of Labor change its administrative procedure so that a copy of the medical examination of the medical examiner of the Department of Labor be sent to the patient's attending physician. At present such reports are stamped with a notice to the claimant to show the report to the doctor. This is not always done and the physician may be in ignorance of the ruling of the referee and the opinion

of the medical examiner, especially where the question of the necessity for further treatment arises. Were this procedure adopted, physicians could immediately contact the employer or insurance carrier and argue out the question of the need for further treatment or submit the case to a third well-qualified physician mutually agreeable to both parties.

As matters now stand we repeat our admonition of last year:

Physicians should be on the alert and should request such reports from claimants after hearings and medical examinations at the Department of Labor. These reports should be retained as part of the physician's record. Where the report contains a recommendation concerning medical treatment with which the physician does not agree, he should in writing notify both the employer or insurance carrier and the Department of Labor of his opinion and recommend that the patient demand another hearing, to which the attending physician may be subpoenaed to appear by the claimant or, if he cannot appear, provide the claimant with the necessary factual data on which his opinion as to medical treatment is based.

We again strongly recommend a change of procedure for examination by the medical examiner of the Department of Labor on the question of the necessity for treatment.*

Wherever possible under present conditions no opinion should be given in the absence of full and complete data furnished by the attending physician. He should, furthermore, be notified in advance by the employer or insurance carrier that this issue will be raised at the time of the hearing or examination. Wherever possible the attending physician's presence should be required if he has not in advance agreed that treatment may be stopped or if the claimant himself insists upon further treatment. The ultimate solution of this difficult and vexing problem will depend upon the creation of the boards of experts employed by the Department of Labor on a full- or part-time basis, preferably the latter. They should be advisory to the referees and the Industrial Board on questions of treatment and concerning other problems related to the adjudication of the claim from a medical standpoint. These recommendations were originally made by the Medical Society of the State of New York to the commission appointed by Governor Lehman in 1932 to study and report on the medical administration of the Workmen's Compensation Law.

Section 13(d).—We again urge consideration of the further extension under Section 13(d) of the use of impartial specialists in the determination of causal relationship and compensation in difficult cases.

"Under Section 13(d) the Industrial Board or referee upon the recommendation of the chief medical examiner of the Division of Workmen's Compensation of the Department of Labor, when hearing a claim for compensation, may require examination of any claimant by a physician especially qualified with respect to the diagnosis or treatment of the disability for which compensation is claimed and may require a report from such physician on the diagnosis, the causal relationship between the alleged injury and subsequent disability, proper treatment, and the extent of the disability of such claimant. These so-called 'impartial specialists' are designated by the Commissioner from a panel of especially qualified physicians submitted by the Compensation Boards of the various county medical societies.

These lists may be added to from time to time if the Commissioner requires additional names. The employer or his insurance carrier pays for such examinations in an amount set by the Industrial Commissioner.

"It was hoped when this addition to the Workmen's Compensation Law was made in 1935 that impartial experts would frequently be called upon by the Department of Labor to decide difficult medical problems confronting the referees and the Industrial Board. Experience proved, however, that in spite of the large number of controverted cases before the Department such impartial examinations have been held relatively infrequently. Rarely have more than 300 such examinations been held in the entire State in any one year in all specialties.

"When the revision of the Law was studied in 1932, it was the opinion of the State Medical Society Committee that boards of experts should be set up by the Department of Labor in the various specialties, either on a full-time or part-time basis, to consider medical controversies and act in an advisory capacity to the referees on the problems presented involving causal relationship, degree of disability, necessity for medical treatment, and other medical questions involving industrial accidents and diseases. Instead of boards of experts, the above panel of 'impartial experts' was provided for in the Law, and in our opinion this procedure has not added materially to the effectiveness with which claims are settled by the Department of Labor. Furthermore, in recent years the ordinary medical examiners of the Department of Labor have been asked on numerous occasions to decide the question of the necessity for further treatment of a claimant, a task for which they are not generally fitted either by training or experience. Furthermore, owing to the limitations of time and space, they are unable adequately to review the history of the case and make an adequate survey of the problem presented and render an opinion that can do justice to all parties in interest.**

Department of Labor.—In our report last year we made certain recommendations for improvement in the procedure of the Department of Labor. During the latter months of Governor Lehman's term the Moreland Act Commission was appointed, headed by Judge William F. Bleakley and Mr. H. T. Stichman, counsel. The Commission is now making a thorough investigation of Workmen's Compensation procedure in this State. Therefore, we shall not at this time comment further on certain administrative procedures in the Labor Department which affect the medical care of claimants.

Miss Frieda S. Miller, Industrial Commissioner, resigned, and Mr. Michael Murphy, the Deputy Commissioner is now Acting Commissioner, pending the appointment of an Industrial Commissioner by Governor Dewey.

In view of the pending investigation, which we have reason to believe will be thorough in nature and scope, we deem it inadvisable to make any recommendations for new legislative enactments affecting Workmen's Compensation but advise awaiting the result of the Moreland Act Commission's work. We hope to have an opportunity to participate at an opportune time in whatever meetings are held by the Commission.

* We refer the reader to the Benjamin Report, cited later in this article.

** See Benjamin Report.

Mr. Edward Corsi has recently been appointed Chairman of the Industrial Board of the Department of Labor by Governor Dewey.

Medical Examination vs. Medical Inspection (The conflict between Section 13-a(4) and Section 13-j(1)).—Under the provisions of Section 13-a(4) the carrier or employer must give notice to the attending physician before conducting a medical examination. If the claimant is not confined to a hospital, such notice must also be given to him and, if he is represented, to his attorney or other representative. The place of examination must be reasonably convenient to the claimant or his physician. Examination shall not be made without the claimant's physician being present unless he waives such right. No representative of the parties, other than the physician of each, shall be present at such examination except by mutual consent. Any report of such examination duly certified shall be filed with the Department of Labor or the employer or carrier. Refusal on the part of a claimant to submit to such an examination may bar him from recovering compensation for any period during which he has refused to submit to such examination.

Section 13-j(1) refers to medical or surgical treatment by insurance carriers or employers. After indicating that an insurance carrier or employer shall not participate in the treatment of injured workmen, the section states that it may employ medical inspectors to examine compensation cases periodically while under treatment and report on the adequacy of medical care and other matters relative to the medical conduct of the case. There are no other provisions requiring notice to the physician or examination in his presence or any indication of the place at which the claimant is to be examined. This medical inspection must be made by a physician who may question the claimant in general as to his condition, and the actual medical examination may be nothing more than an observation.

This essentially is the difference between the medical examination under Section 13-a(4) and Section 13-j(1). Carriers usually agree that the medical inspection is primarily a routine check-up. Usually the medical inspector will not remove bandages or dressings or interfere in any way with the treatment being rendered by the attending physician. The difference between the "examination" and the "inspection" is not clearly defined, however.

Many insurance carriers assume that any medical examination is an inspection and do not give notice of same to the attending physician. Frequently the medical inspection is the preliminary to the referral of the claimant to a specialist for more complete examination. Furthermore, it is cheaper for the carrier to have a medical inspection under Section 13-j(1) than to have a complete medical examination under Section 13-a(4), where the physician's presence is required. The medical inspection may also be used to obtain certain confidential information in the absence of the attending physician. There is no penalty under Section 13-j(1) if the claimant refuses to appear for the medical inspection. There is a penalty provided in Section 13-a(4) as given above. In order to apply the penalty, the carrier would have to invite the attending physician to be present, and then, if the claimant refused examination, the Department of Labor could enforce the penalty. It is true that claimants rarely raise any objection to the inspection and physicians only infrequently, especially if the carrier has the courtesy to notify the physician that they wish an inspection. Failure to grant either an examination or an inspection usually

results in the early stages of the case in the controversy of the claim before the Department of Labor, requiring a hearing. While it is incumbent upon every insurance carrier to file a report with the Department under rules laid down by the Labor Department, effective February 27, 1942, the Compensation Insurance Rating Board, speaking for the carriers, objected on a number of grounds to these filing requirements, alleging that the reports were paid for by the carriers and were their property. Another objection was that the filing would compel the employer or carrier to expose to the claimant or his representative the defense in an improper claim and the disclosure of confidential material needed in the defense of the claim. The ruling of the Board was modified so as not to require the filing of reports of medical inspections under Section 13-j(1).

This again brings up the question as to the difference between a "medical inspection" under Section 13-j(1) and a "physical examination" of the claimant under Section 13-a(4). The claimant's representative could, of course, request the referee to direct the carrier to produce the report of the "inspecting" doctor, and where the carrier did not accede voluntarily the referee might indicate to the claimant that he could obtain his own medical evidence, which under a recent ruling might have to be at the claimant's own expense if for evidential purposes. In some instances, however, the referee would direct the carrier to produce the evidence. There should be a clarification of the difference between medical examination under Section 13-a(4) and the medical inspection under Section 13-j(1) and the necessity of filing the latter report with the Department of Labor. It is our opinion that the spirit of the law at least would indicate that any medical examination or inspection by the employer or carrier should be conducted under the provisions of Section 13-a(4) and that Section 13-j(1) is merely an addendum to the rule which prohibits a carrier from engaging in medical practice, though entitling him to examine the claimant under certain specified conditions.

Fees for Testimony at Hearings.—Under date of June 7, 1940, the Industrial Board ruled that "a physician, other than the attending physician, who testifies at hearings or examines claimants or participates in examinations for evidential material for compensation hearing purposes only, may accept fees for such services from claimants or employers or carriers. In no event shall this fee be fixed by the referee."

Section 13-f, paragraph 2, states, "whenever his attendance at a hearing is required, the physician of the injured employee shall be entitled to receive a fee from the employer or carrier in an amount to be fixed by the Commissioner (i.e., the referee), in addition to any fee payable under Section 120."

Under the free-choice principle, a claimant has the services of an authorized physician and specialist at his disposal. Before the law was changed in 1935 medical representation at hearings was confined mainly to physicians employed or authorized by the insurance carriers and employers. In controverted cases the referee, on recommendation of the chief medical examiner of the Department of Labor, may submit the case to an impartial specialist for examination and report, and this examiner may subsequently be called in for cross-examination by the claimant. However, the appointment of "especially qualified" physicians is not carried out to any extent at this time. Therefore, it would seem that the claimant is entitled not only to treatment but also to the services of a specialist as a part of the expense

incurred as a result of his injury to determine the extent of his injuries and disability, in order to protect his claim before the Department of Labor. Claimants these days are more frequently represented by lawyers or claim representatives than heretofore, but there is still a large percentage who have no legal representative. It would seem that in accordance with the spirit of Section 13-f(2) the referee should be the deciding factor as to whether the specialist called in for the purpose of examining the claimant, and aiding him in the presentation of his claim, should be paid. Even though the claimant may have a representative, he may be unable to pay for the services of a specialist. It is true that the attending physician may foresee the necessity of establishing the claim by expert testimony, in addition to his own, and may call in a specialist during the treatment of the case—under which circumstances the specialist could then be considered one of the attending physicians. Under these circumstances there would be no bar to the payment under the present rule of the Industrial Board.

Insurance carriers are able to employ one or more experts, and to refuse the payment for testimony of at least one of the claimant's experts would put him to great disadvantage. Therefore, it would seem that the rule of the Industrial Board works a hardship in certain instances and should be rescinded, with appropriate recommendations to control any abuse on the part of claimants and claim representatives in calling more specialists than necessary or when unnecessary. We believe the rule should be based upon the necessity of expert testimony to establish a particular claim.

Chairman, Osteopathic Society Compensation Board.—Dr. C. M. Bancroft has retired as Chairman of the Compensation Law Board of the New York State Osteopathic Society, and Dr. Melvin B. Hasbrouck, 90 State Street, Albany, New York, has been appointed in his place. We are pleased to report that we may expect the same close cooperation from Dr. Hasbrouck that we have always received from Dr. Bancroft, who represented his Society ably and conscientiously within the spirit of the Workmen's Compensation Law.

Routine Duties of Workmen's Compensation Bureau.—Owing to the limitations of space, we will not attempt to comment on the routine duties of the Bureau during the past year. Because of the war, these have increased to a large extent and have resulted in the receipt of many more communications from Compensation Boards and individual physicians throughout the State than in previous years.

We are happy to report that despite the entrance of many officials of the county medical societies into the armed forces, other physicians have been appointed to replace those who entered service and the work of Compensation Boards is proceeding satisfactorily.

As usual your Director attended hearings before the Industrial Board and the Industrial Council of the Department of Labor, and numerous conferences with the Insurance Carriers' Organization.

In addition, your Director has attended meetings called by various committees of the State Medical Society, the Council, and other groups, as well as those of the Legislative Committee. The Bureau has been particularly active in the arbitration of bills of physicians who went into service and invites inquiries from physicians who are about to enter the services and wish to have their rights under the law protected.

First Aid Stations.—The attention of Compensation Boards throughout the State is called to the

necessity of vigilance regarding medical bureaus and first aid stations. Medical bureaus licensed by the Department of Labor on recommendation of the Compensation Committees of the county medical societies should be inspected from time to time to see that they are run in accordance with the provisions of the law and that medical care and the attendance of physicians are adequate. Attention should be given to practices of first aid stations which are not entitled under the law to treat Workmen's Compensation cases beyond the emergency or first aid visit. All instances where plants having established first aid bureaus are believed to be violating the Compensation Law should be immediately reported to this office for investigation.

Some provision should be made in our Compensation and Public Health Laws to govern first aid stations as to equipment, personnel, and scope of practice. There is none at the present time. Provision should also be made to include first aid stations under the Workmen's Compensation Law so that they may be subject to medical supervision.

Medical societies' Compensation Boards should be vigilant in investigating reports that employers or medical bureaus are violating the spirit of the Workmen's Compensation Law regarding free choice. An injured employee who waives his right to free choice and elects to be treated in a medical bureau or by a physician of the employer's choice may at any time select his own physician or specialist. Any complaint that this freedom of choice is being denied a claimant should be investigated and this Bureau will afford any help possible in correcting the situation.

Cost of Maintaining Medical Practice.—In answer to Communication No. 48 (which was supplementary to Communications No. 39 and No. 45) addressed to the county medical societies on January 15, 1943, in which we requested additional information concerning the cost of maintaining medical practice and of all items entering into this cost, we have thus far received replies from 20 county medical societies. The majority of these indicate the basis for an increase which we have requested from the Industrial Commissioner and support such demand for an increase. Owing to the change of administration, it was deemed inadvisable to submit this additional information to the acting Industrial Commissioner. A comprehensive investigation is being made of the administration of the Workmen's Compensation Law in all its ramifications by the Moreland Act Commission, which will have a bearing on our request for increased fees. We are prepared at the opportune moment to press our claim for an increase and for removal of the discount allowed by the previous Commissioner for payment of bills within the thirty-day period after their submission.

Interns and Assistants to Surgeons.—Because of the shortage of interns, many hospitals are so undermanned in this respect that no interns are available for assistance at operation in private and semiprivate cases, including compensation cases. It will be necessary, therefore, for physicians operating on compensation cases to call to assist them qualified physicians who will be entitled to a fee for surgical assistance under the Workmen's Compensation Law in accordance with Item 15.*

The above condition prevails principally in the smaller communities throughout the State and has not as yet become very acute in the larger cities.

* See exceptions under Items 375, 376, 380, 381, now under discussion with the Compensation Insurance Rating Board.

This is in accordance with the rule that wherever hospital interns are available, private assistants, except under most unusual circumstances, are not to be called in.

Report of Hon. Robert M. Benjamin.—The report of the Hon. Robert M. Benjamin as Commissioner, under Section 8 of the Executive Law on Administrative Adjudication in the State of New York, is in press at the time of this writing.

It is a comprehensive review of Administrative procedures under the Workmen's Compensation Law, consisting of some 380 pages. The report is replete with information concerning every aspect of the administration of the Law from the standpoint of the claimant, his legal or lay referee, the physician who treated him, the insurance carrier or employer, and the various divisions of the Department of Labor and the Industrial Council. It goes into the question of the appointment of at least one physician member of the Industrial Board, as well as the appointment of physician referees. The report does not recommend the adoption of these suggestions and gives the reason for such opinion.

In respect to the medical bureau of the Division of Workmen's Compensation, the report states: "It is of paramount importance that a claimant leave an examination by a State doctor with the feeling that the examination has been fair and that he has been treated with decent consideration. It is not too much to say that failure at this point is likely to destroy a claimant's confidence in the fairness of the whole compensation procedure. Without minimizing the importance of the manner and conduct of referees, it may be pointed out that the circumstances of a physical examination emphasize the importance of these factors in the contact between a claimant and the medical representative of the State. Observation discloses that there is considerable room for improvement. It is recommended, among other things, that civil service examinations take account of the special qualities of interest and temperament that are necessary for the most satisfactory performance of a State doctor's work."

It was further recommended that additional types of medical specialists be included in the personnel. The Department already has a board of experts on dust diseases and silicosis, and one or more of the physicians of the Department have special aptitudes, but so far there are no specially qualified physicians assigned to the Department who are recognized experts in such fields as neurology, psychiatry, orthopaedic surgery, roentgenology, internal medicine, etc.

The determinations of the necessity for further medical care at present are under the jurisdiction of referees of the Department of Labor, who may, after a hearing, authorize medical care. Under Section 19 of the Labor Law, a decision of a referee is deemed the decision of the Industrial Board; therefore, it would seem that the decisions as to medical care and authorization under section 13-a(5) be within the province of the Industrial Board. The problem presented by section 19-b of the Workmen's Compensation Law is more complicated. This section antedates the free-choice amendment of 1935, according to the Benjamin Report, which gives to an injured employee the right to select any physician authorized by the Industrial Commissioner to render medical care. Under these amendments, the statutes provide that medical care should be furnished by the employer or carrier, and the employee could secure care by a physician of his

own choice, at the expense of the employer or carrier, only if they failed to provide medical care within the statutory period. The Commissioner reports: "The free-choice amendment should logically have included, but did not include, an amendment of Section 19-b. This section provides that a State doctor may recommend certain treatment, and that the referee shall direct the employer or carrier to provide such treatment, but without designating the particular physician or hospital to provide same. Obviously the provisions of Section 19-b are meaningless in the context of the free choice amendment. They have nevertheless been relied on to some extent to justify the present practice of referees in deciding questions of further medical care both with respect to items covered by Section 13-a(5) and with respect to other items. While the reliance is recognized to be legally feeble, the practice of participation by referees in the decision of such questions appears to be a desirable element in the solution of the problem of further medical care." The report then goes on to state: "It is recommended that Section 19-b be amended to eliminate the practice referred to above, and to substitute therefor (though probably not in the same section) provision empowering the Industrial Board (that is, the Board itself or the referees) to decide that further medical care, of a kind to be specified in its decision, is necessary, and providing that such a decision shall be binding in any arbitration proceeding under Section 13-g, as to the necessity of that kind of treatment (but not as to the extent of the treatment of that kind rendered, or as to the amount of the charge therefor)."

The report further states that the relation of the proposed new statutory provisions to the provisions of Section 13-a(5) should be noted. Section 13-a(5) provides that with respect to certain items of medical care the claimant's physician or hospital shall receive no compensation unless such care has been authorized by the employer or the Department (or unless such authorization has been unreasonably withheld, or unless such services are required in an emergency).

"It is not intended by the new statutory provisions to extend to other items a requirement of proper authorization as a condition of the physician's or hospital's right to receive payment. It is intended by the proposed provisions to empower the industrial board to decide, with respect to all items of further medical care, the question whether or not care of that kind is necessary, when that question is submitted for its decision. Under the proposed new statutes, as has been noted, questions as to the extent of treatment and the charge therefor will remain open for arbitration where they arise. Such questions may, in certain circumstances, also arise in cases under Section 13-a(5)." Further, "The purpose of the proposed statute is clear. It is to give assurance to the claimant's physician or hospital in a proper case that medical care of a particular kind will be compensated, and thus to assure that there will be no reluctance on the part of the physician or hospital to provide such care for fear that payment may later be refused on the ground that the care was not necessary. The removal of such doubts by agreement on questions of further medical care between the claimant's physician or hospital and the carrier's physician is to be encouraged, but there will undoubtedly continue to be cases where no such agreement can be reached; and it is to meet such cases that the recommendation is made to validate by statute the existing practice of referee decision."

Reference to our reports will indicate that we have, of the problem of authorization under Section 13-a(5) and the question of the necessity for further medical care. We have frequently urged that where no agreement can be reached between the attending physician, whose duty it is to render medical care, and the physician of the employer or carrier, who serves the interest of his employer, there should be resort to the Industrial Board of the Department of Labor for a final decision. This is in accordance with the amendment to the Workmen's Compensation Law offered by the Law Reform Committee of the Bar Association in 1942, which failed to pass. It requires, however, a proper and expert medical staff available to the Industrial Board and the referees, who will make a careful and unburied examination of the claimant, taking into consideration the history and record of the case and the opinion of the attending physician before rendering a decision. In certain types of cases it is our experience that there must be a final body to decide on the necessity and continuation of treatment. This would expedite the determination of functional disability by referees and hasten the judicial procedure before the Department of Labor.

The report continues: "The administration of Workmen's Compensation in New York has a history of more than twenty-five years. The present study of the procedural aspects of that administration has shown what is, generally speaking, a history of development in the right direction. Various elements of the procedure are clearly subject to improvement; but it is to be recognized also that a great deal has already been achieved after considerable effort and experimentation, and that such effort and experimentation are continuing.

"The importance of continuing development in the right direction is obvious. In every year for a considerable period of years, well over 100,000 injured employees have come into direct contact with the compensation system, and as many as 400,000 more have knowingly or unknowingly come within the jurisdiction or scrutiny of those administering the system, through the filing of an attending physician's report of an industrial accident or of one of the other reports that have been described. The system results in the payment of, roughly, \$45,000,000 a year by way of direct money benefits and medical benefits; and the cost of administering the system is roughly \$1,500,000 a year."

We believe it has been amply proved that the free-choice principle has been a forward step in Workmen's Compensation legislation. It has drawn into the service of injured claimants practically all of the best qualified physicians in the profession, and has given the claimant the services of a physician in whom he can have confidence both with respect to medical care and to the adjudication of his claim before the Department. There are ample means of protecting the interests of employers and carriers under existing law and proposed amendments to the law if only employers and carriers would avail themselves of them. The constituted compensation committees or boards of medical societies are eager to carry out their responsibilities with respect to improper medical practice and other dereliction on the part of physicians, but in this duty they require the support and cooperation of employers and insurance carriers. This cooperation is invited to the end that the free-choice principle may operate to the benefit of all parties of interest and particularly with a view of keeping within reasonable bounds the cost of

medical care which, ultimately, is borne by the consumer.

Joint Committee.—For some time we have urged the formation of a joint committee consisting of representatives of the insurance carriers, self-insurers, this Committee to serve as a forum to discuss our mutual problems and expedite the administration and technical details of the Workmen's Compensation Law. Up to this time we have not been able to effect such a relationship and strongly urge it as an important step in the direction of fostering better cooperation between the medical professional and the above groups.

Procedures Regarding Compensation.—We must again request the cooperation of all authorized physicians in their own interest in the following procedures:

1. Filing of the C-4 report within forty-eight hours with the insurance carrier and the Department of Labor. If the carrier is not known, or if the employer is a self-insurer, send reports to the employer as well as to the Department of Labor, and request the employer to forward same to carrier at once.
2. File C-4 report within fifteen days in as much detail as possible. If the case has been completed in a few visits, the C-4 report alone may be submitted at once and marked *final* and may, under these circumstances, take the place of a C-104.
3. File progress reports every three or four weeks, even if not requested to do so, and if physical therapeutic treatments are to be prolonged beyond the \$25 limit, make such request on a C-14 report, giving reasons for the request.
4. Do not fail to request authorization, in writing, for operations or consultations over \$25, or x-ray or laboratory examination over \$10. Even in an emergency where such authorization is not required, it is advisable to inform the employer or carrier of the procedure.
5. Send bills promptly and fully itemized. In protracted cases, send bills periodically.
6. Keep copies of all reports and correspondence, and when communicating by telephone ascertain the name of the person spoken to and record same.
7. When accepting a case previously treated by another physician, personally contact said physician and confirm the transfer by letter as required by the regulations.
8. In all old cases returning for treatment, file additional C-4 reports at once. In old cases, where patient was treated by another physician, contact said physician and insurance carrier and learn the facts about the standing of the claim and previous medical, x-ray, and laboratory examination. File reports promptly.
9. Consultants should send reports on their own stationery to the attending physician, insurance carrier or employer, and the Labor Department. Authorization should be obtained for x-ray and laboratory procedures in excess of \$10, and in doubtful cases the carrier or employer should be contacted to determine whether such examinations have not been made recently. This avoids duplication, unnecessary expense, and disputes over bills.
10. Where the patient is referred by a claim representative or attorney for evidential purposes, demand a fee for examination in accordance with Labor Department regulations.
11. Where the patient was injured by a third party and a third party action is imminent, ascertain from the patient's attorney or carrier the date of the beginning of the third-party action. Make

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ministration, is to provide medical care for indigent migratory workers.

Coroner System.—Attention was directed to the need of improvement in the coroners' system in the State of New York, with the main idea that post-mortem examinations should be conducted by properly trained pathologists. The subject was also taken up with the Legislative Committee, the New York State Association of Public Health Laboratories, and the New York State Association of Funeral Directors.

The Public Relations and Economics Committee is, of course, much interested in the work of the Legislative Committee and the Committee on Publicity, and it was much pleased to note the public benefit from the activities of these important Committees.

The Public Relations and Economics Committee is aware that at all times the relationship of organized medicine with the people of this country should result in that honest and open understanding so necessary and helpful to progress in public health. Now that we are in this great struggle of winning the war, our unselfish efforts and cooperation will be all the more sustaining and comforting to the citizens whom it is our duty and privilege to serve. Thought, of course, has been given to the status of medicine after the peace. Inquiry made on a wide scale brings usually a heart-felt response from the individual, the family, and the home—"We are sorry we lost our doctor, but they need him. We hope he returns soon." May this be true.

PART XI

Status of Foreign Physicians

The Council has carried out the directions laid down at your 1942 meeting to:

1. "Make a study of the present and possibly the contingent future problem confronting the public and the medical profession.
2. Formulate a plan
 - (a) "Taking into consideration the protection of the public."
 - (b) "For the preservation of the standards of the medical profession."
 - (c) "The safeguarding of the rights and legal interests of the members of that profession."
 - (d) "With humane consideration of the situation of the emigre noncitizen physician."

3. "Present the report of such studies and their recommendations for the solution thereof and the means for its accomplishment, both present and future, at the next meeting of this House of Delegates."

4. "That the Council take such steps in the interim between this and the next meeting of this House of Delegates to properly safeguard the medical interests of the armed forces of the United States, the State of New York, the public health and welfare, and the existing standards of the profession of medicine."

A committee was appointed consisting of: F. Leslie Sullivan, M.D., *Chairman*, Scotia; Howard Fox, M.D., New York; David A. Haller, M.D., Rochester.

The Committee made a factual study which was published in the January 15, 1942, issue of the *NEW YORK STATE JOURNAL OF MEDICINE*, after submission to the Council. Reprints will be distributed

before the Meeting—with notations of certain minor corrections.

The Council adopted the following recommendations made by its Committee:

- "1. There should be continued coordination between the State and County War Participation Committees and Procurement and Assignment to preserve a favorable balance of medical personnel throughout the State to protect the man who goes into service.
- "2. Through the combined activities of Procurement and Assignment, War Participation Committees, and the Public Relations Committees of the State Society and the counties, the Council shall make itself cognizant of the areas where medical manpower shortage might prevail and do all in its power through these committees to persuade selected physicians to move into these areas for the benefit of the public health and the protection of the man in active service.
- "3. Change the State Education Law, Sec. 1256, Ch. 1, to read: 'is more than 21 and a citizen of the United States.' Delete 'or has declared his intentions of becoming a citizen'; or change the requirements by rule of the Board of Regents. This recommendation is made with consideration that such a move will be made at the opportune time.
- "4. First, as Dr. Cottis suggested, we should increase the school loads, to put out more native physicians as far as this is possible; second, let the public know that the State Medical Society is not desirous of lowering the quantity of physicians and surgeons but rather to maintain their quality.
- "5. That Procurement and Assignment, in line with the refore published, 1,000 of the state's approximate 3,000 licensed emigres. This, with 'humane consideration,' would equal the percentage of native physicians already utilized for military service."

In regard to recommendation No. 3, the Council referred this to its Legislative Committee with the understanding that the Committee would exercise its discretion and judgment as to an "opportune time" for legislation involving such a change in the Medical Practice Act.

PART XII

Miscellaneous

Travel Expenses of Delegates to A.M.A.—The Council recommends that Chapter X of the Bylaws be amended to allow delegates to the American Medical Association the usual travel expenses such as are allowed to members of Council, Trustees, Censors, and members of Committees, instead of only "railroad transportation and Pullman accommodations." To that end the Council submits the following amendment:

In Chapter X, Section 1, of the Bylaws delete the sentence which reads: "The delegates to the American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the Secretary evidence of such attendance shall be allowed the actual cost of railroad transportation and Pullman accommodations to the place of meeting and return."; and insert in its place the

arrangements with claimant for payment of all medical services from this date.

12. If claimants are within the draft age, ascertain at once from the carrier whether the claim will be controverted on the question of accident, notice, or causal relationship and arrange for an early hearing by the Department of Labor before claimant is inducted.

13. Take a careful history in every case, and if there is any doubt as to whether the claimant was injured in the course of his employment, contact the employer and verify the accident. Where the employer denies liability, a fee may be accepted from claimant with the understanding that same will be returned after a hearing before the Department of Labor if the case is declared compensable. In all doubtful cases give the patient the benefit of the doubt and render medical care pending determination by the Labor Department. If possible, obtain written authorization from employer where patient is referred by employer and compensability seems doubtful.

14. Where a fee in excess of the minimum is warranted, notify the carrier or employer at once and state the reasons. After emergency operation, notify the carrier or employer of reasons for fee in excess of the minimum and request in writing authorization for same.

15. Keep up to date on unpaid bills and request arbitration forms if objection is made by carrier and bill is not settled within a reasonable period.

16. If you fail to get cooperation in any of the above procedures, bring matters to the attention of your Compensation Committee or to this Board at once.

Appreciation.—Your Director wishes to acknowledge the loyalty and efficiency of the work of the office staff, without which the work of the Bureau could not have been conducted at its present level of efficiency.

A word of commendation is due to the representatives of the Compensation Insurance Rating Board, especially Mr. Henry D. Sayer, Mr. I. Sofferman, and Miss Elizabeth V. Doogan, for their cooperation, and Mr. Ralph R. Boyer and Mr. Hugh J. Murphy of the Department of Labor, and to those claim representatives of insurance carriers who have co-operated with this Bureau throughout the year in helping to solve the many difficult problems confronting us.

PART X

Public Relations and Economics

The Council Committee on Public Relations and Economics was continued with the same personnel:

Augustus J. Hambrook, M.D., *Chairman*... Troy
Herbert H. Bauckus, M.D. Buffalo
Harry Aranow, M.D. New York

Owing to the illness of Dr. Hambrook, Dr. Bauckus was appointed cochairman, later, after Dr. Hambrook's death, succeeding him as chairman. The Committee then consisted of:

Herbert H. Bauckus, M.D. Buffalo
Harry Aranow, M.D. New York
Charles M. Allaben, M.D. Binghamton

This Committee presents the following report.

REPORTS

The work of the Committee during the year was unfortunately interrupted by the untimely death of

its Chairman, Augustus J. Hambrook, M.D. The loyalty and qualifications of Dr. Hambrook are, of course, well known to the medical profession of New York State. We sincerely regret his loss, and we cherish his memory.

Of course the most important work of the organized medical profession has been its part in promoting the winning of the war. All of our efforts have directly or indirectly been concerned with this humane undertaking. The subjects of medical preparedness (war participation), procurement and assignment, and democratic rationing of physicians were studied in connection with many of the other Committees of the Council.

Reference is herewith invited to the report of the War Participation Committee, under the capable chairmanship of Dr. Louis H. Bauer.

Nursing Shortages.—Early in March the Committee met with the New York State Nursing Council for War Service. This meeting resulted in a free exchange of opinion to enable the country to obtain the maximum amount of service from the much needed but limited nursing personnel. Further conferences will be held relating to the important nursing problem.

Workmen's Compensation Problems.—During the year several conferences were held with Dr. David J. Kaliski, Director of the Workmen's Compensation Bureau. As a result of the discussions, a memorandum was sent to each county society calling attention to the need for adhering to a minimum Workmen's Compensation Fee Schedule as a standard of evaluation for medical services. This question was regarded as especially important in dealing with medical services rendered to groups. The Committee considered the question raised by last year's House over the advisability of raising some of the items in the Workmen's Compensation Fee Schedule now in effect in this state. This subject is under the study and consideration of the Workmen's Compensation Committee. There was also discussion regarding the present status of the practice and law calling for free choice of physician in compensation work. It might be pointed out that now, when all physicians are very busy and industrial services are in great demand, the inclination of the practitioner is to be not much concerned about the matter. However, it would be well to guard against untoward practices in the free choice question lest it become a habit with industries. We probably will not always have the industrial activity and demand for services that we now have.

Intern Insurance.—With the cooperation of the Director of the Bureau of Workmen's Compensation, an opinion was obtained from our Counsel which in effect classified interns and resident physicians in hospitals as coming under the Workmen's Compensation Act when affected by accident or other compensable disease.

Industrial Examinations.—The Committee adopted a resolution, which was approved by the Council, re-emphasizing its code of ethics to the effect that the rejection or demotion of any person shall be based solely upon accepted medical and scientific criteria in industrial physical examinations. A copy of this resolution was sent to each county society.

Farm Worker Problem.—During the year the Chairman was appointed, on the recommendation of the President and the Council, a member of the Board of the Atlantic Seaboard Migratory Agricultural Worker's Health Committee. The purpose of this Board, supported by the Farm Security Ad-

WAACS, WAVES, SPARS, or "WAMS" (Women's Reserve of the U.S. Marine Corps).

Suggestions for Component County Medical Societies.—The Council received from the County Secretaries Conference on December 2, 1942, certain recommendations, which it adopted and passed on to the county societies.

The first is a suggestion that county medical societies have their delegates to the House report back to their county societies on the meeting of the House.

The second is that the county societies, when transferring members, indicate Workmen's Compensation qualifications, and also send a copy of the original application blank for membership. It was understood that if a county society did not have a copy of the application blank in its file the New York Office of the State Society could be asked to furnish one to the receiving county society.

PART XIII

Malpractice Defense and Insurance

The Council Committee on Malpractice Defense and Insurance was continued as follows:

Clarence G. Bandler, M.D., *Chairman*..... New York
Murray M. Gardner, M.D..... Watertown
Andrew Sloan, M.D..... Utica
Peter Irving, M.D., *ex officio*..... New York
Kirby Dwight, M.D., *ex officio*..... New York
The Council transmits the Committee report.

REPORT

The Committee on Malpractice Defense and Insurance recommended to the Council of the Society, after a complete review of the operating costs of the Group Plan of Malpractice Insurance had been made, that it would be necessary to increase the annual base rate premium on account of the upward trend in the loss experienced. Accordingly the Council, at its meeting on April 28, 1942, approved an increase in the base rate to \$32, effective as of July 1, 1942.

The premiums for limits in excess of the minimum \$5,000 have been sufficient to carry the cost of all losses in excess of that minimum and, therefore, no increase in the excess limit rates was necessary. Thus the rates for all limits of insurance reflect only the \$4.00 increase in the base rate.

It was determined, however, that because the loss costs for the settlement of claims and suits for "cosmetic" plastic surgery were abnormally excessive and because the hazard of x-ray therapy necessitated an additional surcharge, it was deemed advisable to change the rates for "cosmetic" plastic surgery by an additional surcharge of 50 per cent. No change in rate was recommended where surgery is performed for pathologic, traumatic, or congenital conditions.

Your Committee announced that arrangements were completed by Mr. H. F. Wanvig, Indemnity Representative, with the Yorkshire Indemnity Company, carrier of the Group Plan of Malpractice Insurance, whereby a reduction of 50 per cent has been made in the annual premium rates for doctors serving in the military or naval forces of the United States, effective November 1, 1942.

Under the agreement with the insurance company, the assured, upon entering the service, may now procure an endorsement for attachment to his certificate of insurance, stating that the insurance provided thereunder is limited to claims or suits arising out of professional services rendered or which should have

been rendered to persons in the armed forces of the United States, or in an emergency to civilian patients while the assured is practicing as a member of the armed forces; and, furthermore, it is understood and agreed that coverage is extended to the assured to cover the liability of the named assured for acts arising out of the appointment by him of another physician to substitute for him in private practice while he is in the armed forces, providing said physician is a member of the Medical Society of the State of New York and is individually insured in the group plan of the Society.

A person in the military service may claim that an officer of the medical corps has in some manner been guilty of malpractice in treating or examining him in the line of duty. A similar claim for alleged malpractice may be pressed against an examining physician for a local Selective Service Board by a selectee called before that board. The fact that a person is in the military service, or is in the course of being inducted therein, does not prevent him from asserting his civil rights so long as the interest of the service or of national defense is not concerned. Hence, the Judge Advocate General of the Army has held, quite properly, that members of the army are entitled to the same civil rights of action with reference to suits for malpractice or negligence as they would have in civil life. Without doubt the same degree of care, diligence, and professional ability required of any physician with respect to the care of patients in civilian life is required by law of a medical officer of the army or of an examining physician for a local board in his care or examination of a member of the service or of a selectee called for the purposes of induction. For a departure from such standards resulting in harm to the patient the medical officer or the examining physician would be liable in a civil suit by the aggrieved patient the same as though both the patient and the physician were in civil life. The medical officer, then, in the army, and the physician acting for a local Selective Service Board by virtue of his service or function, stands in no different position with respect to answerability to his patients from that of a physician acting solely in a civil capacity.

A word of caution should be sounded for physicians going into military service and who have arranged with an associate to carry on their practices during their absence and who assume that under such arrangement they would have no malpractice liability to their patients. It seems most likely that the doctor left in charge of the practice would be held as the agent of the member whose practice is being covered and any action on account of the acts of the agent would probably be brought against both doctors. For this reason and as a factor of security, it is recommended that any doctor who has been or may be called for military activity should retain his Society's malpractice insurance and defense.

For those members engaged in the specialty of administering x-ray therapy only, attention is again called to the special annual base rate premium of only \$30. A special endorsement may be procured as follows:

"In consideration of the premium charged for this certificate of insurance, it is hereby understood and agreed that the insurance granted under this certificate shall extend to and cover only the assured's liability on account of the use of x-ray apparatus for therapeutic treatment or the prescription of dosage therefor."

following sentence: "The delegates to the American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the Secretary evidence of such attendance shall be allowed traveling expenses."

Nominations.—The Council, on official request of the Secretary of the Committee on Grievances, nominated for appointment to succeed Dr. Terry M. Townsend, deceased, as a member of the Committee on Grievances of the State Department of Education, Dr. Walter P. Anderton, of New York. Dr. Anderton was appointed to complete Dr. Townsend's unexpired term.

The Council, on request of the Department of Education, nominated as a representative of the Medical Society of the State of New York, Dr. O. W. H. Mitchell, of Syracuse, to succeed Dr. Augustus J. Hambrook, deceased, as a member of the Board of Regents Advisory Council on Health and Physical Education. Dr. Mitchell was duly appointed.

The Council, on request nominated Dr. Peter Irving, of New York, and Dr. Herbert H. Bauckus, of Buffalo, to sit on the new State Nursing Council for War Service. Both have been elected to membership on that Nursing Council.

The Council, on request, nominated Dr. George R. Critchlow, of Buffalo, to succeed himself as a member of the Nurse Advisory Council of the State Department of Education, on expiration of his term on December 31, 1942. Dr. Critchlow was duly appointed.

The Council, in accord with your previous action, submitted a list of seventeen nominees to the Annual Meeting of the Physicians' Home, Inc., from which directors were selected.

Office Administration and Policies.—The personnel of the Committee on Office Administration and Policies has been, under the formula you laid down last year, the General Manager, the Business Manager of JOURNAL and DIRECTOR, the literary editor, the Treasurer, and a Trustee appointed by the President, Dr. Kosmak, who was selected as Chairman by the Committee.

The Committee has held regular meetings with the Publication Committee, considering various matters. In particular, it has gone over the data of all replacement employees recommended for permanent employment, passing on their suitability. In this connection, the Committee adopted the policy of having pre-employment examinations made in the effort to discover physical difficulties that might interfere with work and, in particular, to exclude tuberculosis.

Careful and full personnel files are now in operation and are accessible to the Executives.

The Committee has investigated several employee pension systems but has taken no action along this line.

U.S. Pharmacopeial Convention.—An adjourned meeting of the 1940 Pharmacopeial meeting was held for the purpose of acting upon the Proposed Constitution and Bylaws drawn up by a Committee on Revision of the Constitution and Bylaws in accordance with a resolution passed at the meeting in Washington, D.C., on April 1, 1940.

Dr. A. F. R. Andresen, one of the delegates representing the Medical Society of the State of New York, made the following report:

"An opinion by an eminent legal authority" was read, which declared that it would be illegal to act upon the proposed constitution at this time and that all the meeting could do would be to receive

it, with one small change being made, as indicated in the attached pamphlet. The principal change from the old constitution consist in a revision of the list of participating organizations, limiting each to one delegate or alternate, and allowing a delegate to represent only one organization. There is also provision for special meetings when required and a simplified requirement for amendments.

"The Bylaws were permitted to be acted upon, but had to be amended to conform to the old constitution, which will be in effect until the new one is adopted in 1950. The Bylaws and the mimeographed amendments enclosed in the pamphlet were adopted practically as presented, with a few minor changes in wording. It was agreed that the new Bylaws shall not be enforced until the Convention of 1950. They make a radical change in procedure, largely guided by Morris Fishbein's presence on the Committee. It is hoped that the many abuses of former days will be eliminated. The personnel of the Board of Trustees will be improved and its powers extended. The General Committee on Revision of the Pharmacopeia and its Executive Committee, the real backbone of the Convention, is completely reorganized. Instead of nominations by caucus, a nominating committee consisting largely of chairmen of subcommittees will present nominations based on recommendations in writing from the constituent organizations, which will be printed and will include a description of the qualifications of each candidate. Nominations from the floor will also be included in the printed ballot together with their qualifications, and elections of officers, trustees, and members of the Committee on Revision will be by printed ballot. A Director of Pharmacopeial Revision will be elected by the Board of Trustees, will be on salary, will preside at meetings, and will organize subcommittees (probably 10) to cover various phases of revision. Every precaution will be taken to make sure that only scientific, well-informed, and serious workers will serve on these subcommittees.

"If the new Constitution and Bylaws are adopted in 1950 as planned, a radical change in its personnel and management will have been effected, which it is hoped will increase its prestige and extend its usefulness."

Leaves of Absence.—The Council has granted to officials and a committee member of the Society "leaves of absence" while in service, as follows:

E. Christopher Wood, M.D., White Plains, Councilor.

Robert C. Peale, M.D., Olean, President of Eighth District Branch.

H. Walden Retan, M.D., Syracuse, Chairman, Section on Gastroenterology and Proctology.

Foster C. Rulson, M.D., Syracuse, Chairman, Section on Radiology.

E. Forrest Merrill, M.D., New York, Vice-Chairman, Section on Radiology.

Ralph Almout, M.D., New York, member of Committee on Hard of Hearing and the Deaf.

Remission of State Assessments for Members in Service.—The Council has continued to waive payment of State Society assessments upon request of the county societies for members entering the U.S. Army and Navy, and the U.S. Public Health Service (as a wartime service). To these it recently added service on full time of members in the auxiliaries of Army, Navy, Coast Guard, and Marine Corps—the

that it would not undertake to tell the Surgeons General how to set standards for admission to their Medical Reserve Corps.

Delegates to 150th Annual Meeting of the Connecticut State Medical Society (Section 40).—The President, with the approval of the Council, appointed Dr. Walter W. Mott, of White Plains, and Dr. Peter Irving, of New York, as delegates. Doctors Mott and Irving attended, and reported a very interesting meeting with emphasis on historical addresses.

Nonprofit Medical Expense Indemnity Insurance (Section 39).—The House adopted recommendations of its Reference Committee as follows:

"That the Subcommittee on Medical Expense Insurance continue its work on the following precepts:

"1. That all county medical societies be contacted and assisted and immediately urged to cooperate with approved plans.

"2. That the State Medical Society, through its Subcommittee, give all aid at its command to help these county medical societies succeed with this work.

"3. That the principles of nonprofit medical insurance be re-emphasized as adopted in the 1941 report.

"4. That intense energy be used to obtain a larger number of subscribers among the low-income groups.

"5. That hospitalization and medical care plans remain independent of each other.

"6. That the members of this House shall act as individual spokesmen to interest the Comitiae Minora and Economic Committees of the component medical societies in nonprofit medical insurance.

"By acting now the members of the Medical Society of the State of New York will continue to offer good medical service on a high ethical scale to all of its patients. The medical profession must immediately unite in the effort to make a plan for voluntary cash indemnity successful.

"Therefore, it is recommended that the three plans now functioning in this state—The Western New York Plan, Inc., Medical and Surgical Care, Inc., and Medical Expense Fund of New York, Inc.—be approved by this House of Delegates."

This was referred by the Council to its Subcommittee on Medical Expense Insurance.

Use of Income from Investments (Section 46).—The House recommended "to the Trustees that they use the income from investments, if they deem it necessary to do so."

(See Trustees' Report.)

1943 Annual Meeting in Buffalo (Section 48).—The House looked "with favor upon the invitation of the Medical Society of the County of Erie to hold its 1943 Annual Meeting in Buffalo, and would recommend the Council be apprised of our action."

The Council decided to hold the 1943 Meeting in Buffalo.

Medical Relief—Direct Payment of Medical Fees (Section 49).—The House adopted a resolution as follows:

"WHEREAS, under the Social Security Act payments for medical care given to recipients-of-aid from the Blind, Old Age, and Dependent Chil-

dren's divisions of the Department of Social Welfare can no longer be made to physicians directly, but, instead, these payments must be made to the patient; and

"WHEREAS, this method of payment has worked a hardship on the physicians who have rendered medical care to these persons by forcing them to make one or more additional calls to collect their bills; and

"WHEREAS, in New York City it has been proven that nearly 5 per cent of these patients have not paid their doctors for medical care rendered with the money which the State Department of Social Welfare gave them, but instead have spent the money for other uses; and

"WHEREAS, we are informed by the New York City Department of Welfare that this percentage is only a fraction of the number of patients who did not pay their physicians for medical care, as shown by the great many complaints from physicians who have telephoned to that Department, rather than written letters which could be submitted in evidence; and

"WHEREAS, a similar resolution was introduced into the House of Delegates of the Medical Society of the State of New York at Buffalo, in 1941, at which time it was agreed that the State Society would carefully watch the experiment of using this method of payment; and

"WHEREAS, we feel that in New York City this experiment has not been a success; therefore be it

Resolved, that the New York State Medical Society, through its Delegates to the American Medical Association, request that the American Medical Association
initiated to
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by that agency."

The delegates to the House of Delegates of the American Medical Association introduced a similar resolution, in which it was thought well to request the A.M.A. House to consider having legislation initiated. The A.M.A. House decided against initiation of such legislation.

Recognition of Services of Civilian Doctors at Pearl Harbor (Section 55).—The House adopted the following resolution:

"WHEREAS, the civilian physicians and surgeons of the Honolulu Medical Society rendered a great service during the Pearl Harbor Attack on December 7, 1941; and

"WHEREAS, at the outset of the emergency they promptly responded to a call for aid from the Tripler General Hospital of the Army, and by their surgical skill and unremitting efforts rendered great aid to the wounded; and

"WHEREAS, by this service a new chapter was added to the successful treatment of war casualties and certain surgical procedures were established which will result in the saving of many lives and limbs from war injuries; and

"WHEREAS, their service was the more outstanding because only a few of them had ever been under fire, and by their courage and stamina they did much to aid the morale of the wounded, of the hospital personnel, and of the civilian population; and

"WHEREAS, the services of the physicians and surgeons were recognized in the official Roberts Report of the Attack by the statement that 92

The Yorkshire Indemnity Company appreciates the continued confidence reposed in it by the Medical Society of the State of New York and wishes to assure the participants in the Group Plan that their interests are always given careful consideration. Whether members continue in civilian practice or have been called into the military and naval services, the company will faithfully safeguard all who are insured and protected by its policies. Your Com-

mittee wishes to emphasize again the fact that the Yorkshire Indemnity Company is a New York State Corporation completely under the jurisdiction of the Superintendent of Insurance, who has stated that "all of its assets are held within the United States." The reliability, as well as the stability, of the Yorkshire Indemnity Company is unquestioned, and our confidence in the Group Plan should remain unchallenged.

Résumé of Instructions of the 1942 House of Delegates and Actions Thereon of Council, Trustees, and Officers

There follows a summary (of "index" type) of the different instructions issued by the House at its meeting on April 27 and 28, 1942. The significant portions alone of the different resolutions are quoted.

The term "section" with a number following each heading refers to the minutes of the 1942 House published in the June 15 and July 1, 1942, issues of the NEW YORK STATE JOURNAL OF MEDICINE.

In each instance the action on the instruction is indicated.

Tuberculosis Conference Committee (Section 33).—The House changed two of the "suggestions," Nos. 7 and 8, that were agreed upon by the Council and Conference Committee.

No. 7 (Original) "Patients, who, in the opinion of the health officer or his representative, for various reasons (contacts, etc.) should have a thorough physical examination including x-ray, as a part of the tuberculosis control program, should be rendered x-ray service without direct cost to themselves."

(New) "Only medically indigent patients or contacts referred by the family physician, who, in the opinion of the health officer or his representative, for various reasons (contacts, etc.) should have a thorough physical examination, including x-ray, as a part of the tuberculosis control program, should be rendered x-ray service without direct cost to themselves."

No. 8 (Original) "All x-ray examinations at federal, state, or municipal hospitals should be done without direct cost to the patient."

(New) "All x-ray examinations at federal, state, or municipal hospitals, including municipal health facilities, should be done without direct cost to the patient."

These two revisions were submitted to the Tuberculosis Conference Committee, which took no formal action. So far, no questions have come to attention that relate to these aspects of tuberculosis control in the state.

Historical Data (Section 34).—The House approved a suggestion that there be undertaken "the compilation of historical data, manuscripts, archives, biographic sketches, memoirs, scientific and practical contributions of this Society during this unprecedented war period."

The Council referred this matter to the Publication Committee, which has not as yet found a way to accomplish the full objectives stated. In this connection, the cutting down of office force makes the full task difficult.

Directory Publication (Sections 34, 46).—The House decided that the *Directory* be not published in 1942 and gave the Council discretion as to further postponement.

The Council, in its discretion, recommends to the 1943 House of Delegates that the *Directory* be not published in 1943 (Council Report—Part IV).

Elimination of Required Certification of Checks for Narcotic Tax Registration (Section 36).—The House adopted the following resolution:

"Resolved, that the Medical Society of the State of New York protest against the requirement that checks for purchase of special tax stamps in connection with dispensing and prescribing opium or coca leaves or any compound, manufacture, salt, derivative, or preparation thereof, are required to be certified; and be it further

"Resolved, that the delegates from the Medical Society of the State of New York to the House of Delegates of the American Medical Association are hereby instructed to introduce a resolution at the 1942 session embodying this protest, and urging the American Medical Association to take emphatic and persistent steps toward the elimination of the requirement for certification of checks previously mentioned in this resolution; and be it further

"Resolved, that copies of this resolution be sent to important local and national dentist, veterinary, pharmacist, manufacturing chemist, and banker organizations, inasmuch as members of such organizations are also affected by the unnecessary labor of certification of small checks."

A similar resolution was presented by the delegates to the 1942 House of Delegates of the American Medical Association and adopted.

Women Physicians in Medical Reserve Corps of Army and Navy (Section 37).—The House adopted the following resolution:

"Resolved, that the delegates from New York County be instructed to ask the House of Delegates to go on record again this year and ask the American Medical Association to aid one of its minority groups by endorsing and aiding women physicians in obtaining commissions in the Medical Reserve Corps of the United States Army and Navy."

A similar resolution was introduced by the delegates to the 1942 House of Delegates of the American Medical Association, which defeated it on the ground

that it would not undertake to tell the Surgeons General how to set standards for admission to their Medical Reserve Corps.

Delegates to 150th Annual Meeting of the Connecticut State Medical Society (Section 40).—The President, with the approval of the Council, appointed Dr. Walter W. Mott, of White Plains, and Dr. Peter Irving, of New York, as delegates. Doctors Mott and Irving attended, and reported a very interesting meeting with emphasis on historical addresses.

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"That the Subcommittee on Medical Expense Insurance continue its work on the following precepts:

"1. That all county medical societies be contacted and assisted and immediately urged to cooperate with approved plans.

"2. That the State Medical Society, through its Subcommittee, give all aid at its command to help these county medical societies succeed with this work.

"3. That the principles of nonprofit medical insurance be re-emphasized as adopted in the 1941 report.

"4. That intense energy be used to obtain a larger number of subscribers among the low-income groups.

"5. That hospitalization and medical care plans remain independent of each other.

"6. That the members of this House shall act as individual spokesmen to interest the Comitiae Minora and Economic Committees of the component medical societies in nonprofit medical insurance.

"By acting now the members of the Medical Society of the State of New York will continue to offer good medical service on a high ethical scale to all of its patients. The medical profession must immediately unite in the effort to make a plan for voluntary cash indemnity successful.

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"WHEREAS, this method of payment has worked a hardship on the physicians who have rendered medical care to these persons by forcing them to make one or more additional calls to collect their bills; and

"WHEREAS, in New York City it has been proven that nearly 5 per cent of these patients have not paid their doctors for medical care rendered with the money which the State Department of Social Welfare gave them, but instead have spent the money for other uses; and

"WHEREAS, we are informed by the New York City Department of Welfare that this percentage is only a fraction of the number of patients who did not pay their physicians for medical care, as shown by the great many complaints from physicians who have telephoned to that Department, rather than written letters which could be submitted in evidence; and

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"WHEREAS, we feel that in New York City this experiment has not been a success; therefore be it

"Resolved, that the New York State Medical Society, through its Delegates to the American Medical Association, request that the American Medical Association have legislation initiated to provide a change in the Social Security Act so that persons rendering medical care to recipients-of-aid from any government agency may be paid directly by that agency."

The delegates to the House of Delegates of the American Medical Association introduced a similar resolution, in which it was thought well to request the A.M.A. House to consider having legislation initiated. The A.M.A. House decided against initiation of such legislation.

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"WHEREAS, by this service a new chapter was added to the successful treatment of war casualties and certain surgical procedures were established which will result in the saving of many lives and limbs from war injuries; and

"WHEREAS, their service was the more outstanding because only a few of them had ever been under fire, and by their courage and stamina they did much to aid the morale of the wounded, of the hospital personnel, and of the civilian population; and

"WHEREAS, the services of the physicians and surgeons were recognized in the official Roberts Report of the Attack by the statement that 92

per cent of the medical profession were available on that eventful historic occasion; therefore be it
"Resolved, that the Medical Society of the State of New York recognize their response to emergency duty and desires to pay a tribute to their demonstration of the traditional willingness of our profession to act promptly and skillfully in all national emergencies."

A similar resolution was presented to the House of Delegates of the American Medical Association by our delegates, and adopted.

Copies of the resolution of the State Society were sent to the Honolulu Medical Society and the Surgeons General of the U.S. Army and Navy.

Financial Aid to County Societies for Medical Preparedness Work (Section 65).—The House referred to the Council the question whether financial aid should be rendered by the State Society to county societies for medical preparedness work.

The Council has taken no action.

Invitation to American Medical Association to New York City in 1945 (Section 65).—The House issued an invitation to the American Medical Association for its 1945 Annual Meeting.

A resolution was introduced in the House of Delegates of the American Medical Association, and New York won over an invitation from Atlantic City.

Extension of Medical Care to Indigents in Their Homes (Section 87).—Continued study by the Council of the following resolution was directed by the House:

"WHEREAS, both the President and the President-elect in their addresses to this House have emphasized the probability of changes in the medical practice of the future and have urged upon us a constructive viewpoint, and

"WHEREAS, in the proceedings of this House emphasis has been laid on the problems of the future relations of the doctor and his private patients, but no thought has been expressed relevant to the present pressing problems of the doctor and the medically indigent, and

"WHEREAS, it is predictable that those in charge of postwar reconstruction will urge an expansion of present allegedly inadequate hospital and dispensary facilities; this because it will furnish a type of employment and will meet but little opposition from the politically-minded because of its sentimental appeal, and

"WHEREAS, the experience of the City of New York during the last fifteen years with a population that has been stationary and a 100 per cent increase in the provision of facilities for the care of medically indigent has shown that construction cannot keep pace with the demand, and

"WHEREAS, the cost per capita for such medical care is close to \$7.00 per day when the hospital census is 100 per cent or over, and would probably be \$8.00 or \$9.00 a day if an ideal census of 80 per cent were attainable, and

"WHEREAS, the home and family have been described as keystones in the arch of democracy and that the removal of the indigent sick from their homes except in cases of real necessity tends to break down the morale of the family unit, by relieving them of the necessity of caring for their own; and

"WHEREAS, it is becoming increasingly difficult to secure the services of competent physicians

or physicians in the clinics of the hospitals in large communities without the promise of compensation; and

"WHEREAS, after the war, with the demobilization of probably 45,000 physicians in the younger age groups who will probably be well organized and in a position to demand security for themselves and their families; and

"WHEREAS, unless forward-looking measures are now taken, they will return to find themselves in a more highly competitive field; and

"WHEREAS, it has been demonstrated in the *Hospital Survey of New York*, Volume II, 1937, that the care of medical indigents in their home, particularly convalescent and custodial care, after a complete hospital work-up and necessary care through the assignment of clinic physicians or other private practitioners to the care of these individuals at a designated and acceptable fee per visit will result in a much smaller cost to the municipalities and will furnish a welcome remuneration to our demobilized physicians; and

"WHEREAS, the State Department of Public Welfare is now enabled to make a contribution to the cost of the care of medical indigents throughout the State; therefore be it

"Resolved, that the Council initiate forward-looking studies toward the attainment of a more satisfactory care of medical indigents from the point of view of both the State and the physician and for the revival of a sense of responsibility for the care of their sick, aged, and crippled by the family."

This resolution was referred to the Subcommittee on Medical Relief. The subject is under observation of the Committee.

School Health Program (Section 47).—The House adopted the following resolution:

"We recommend that the Council, through its Subcommittee, continue its efforts to bring about the changes whereby supervision of health and health problems among children of school age be under the charge of physicians. If this cannot be achieved through the cooperation of the State Education Department, we recommend that further steps be taken, particularly efforts to bring the matter to the attention of Parent-Teacher Associations, to the bodies interested in the school health problem, and to the public in general; and if necessary through attempts to secure legislative action."

This has been kept in mind in negotiations with the authorities, both by the former Subcommittee on School Health Program and by its successor, the Subcommittee on Child Welfare of the Council Committee on Public Health and Education.

Discriminations in Employment of Minority Racial Groups (Section 67).—In connection with opposition to discriminations of the kind indicated, the House referred to the Council the matter of advertisements from Becton, Dickinson & Company, East Rutherford, New Jersey.

Study showed that no advertising had been in the *JOURNAL* or the *Directory*. Therefore, no action was needed.

Foreign Physicians.—Present and Future Status (Section 88).—The House adopted the following resolution:

"Resolved, that the Council take such steps in the interim between this and the next meeting of

this House of Delegates as to properly safeguard the medical interests of the armed forces of the United States, the State of New York, the public health and welfare, and the existing standards of the profession of medicine."

The President, with the approval of the Council, appointed a committee to study this matter. (See Council Report, Part XI.)

Workmen's Compensation Fee Schedule (Section 70).—The House approved a resolution as follows:

"Resolved, that the Delegates from the Medical Society of the County of Albany be instructed to introduce a resolution at the next meeting of the House of Delegates to the effect that the Council of the Medical Society of the State of New York through its appropriate representatives take immediate steps to review the present fee schedule with the Commissioner of Labor with a view of increasing the minimum fees now established by law (suggested increase, 25 per cent), and that the component county societies be informed from time to time of the status of these proposed negotiations with the Commissioner of Labor."
(See Council Report, Part IX.)

Subcommittee on Tuberculosis and Diseases of the Chest (Section 86).—The House adopted a resolution:

"WHEREAS, at the 1941 meeting of the House of Delegates in Buffalo, New York, a resolution was introduced asking for a session on chest diseases by the New York State Chapter of the American College of Chest Physicians; and

"WHEREAS, the House of Delegates' Reference Committee on New Business gave serious consideration to this resolution by recommending to the House of Delegates that a symposium on chest diseases to be furnished by the New York State Chapter of the American College of Chest Physicians be included at a general session of the Annual Convention in 1942; and

"WHEREAS, the New York State Chapter of the American College of Chest Physicians have respectfully requested that a subcommittee on chest diseases of the Council Committee on Public Health and Education be established; therefore be it

"Resolved, that the House of Delegates of the Medical Society of the State of New York establish such a subcommittee."

After due consideration, the Council adopted a recommendation of its Committee on Public Health and Education that there be appointed a Subcommittee on Tuberculosis and Diseases of the Chest working under the Public Health Committee. (See Council Report, Part II.)

Respectfully submitted,
PETER IRVING, M.D., *Secretary*

Report of the Counsel

To the House of Delegates; Gentlemen:

Your Counsel herewith submits his report of the activities of the Legal Department of the Medical Society of the State of New York for the period from February 1, 1942, to and including January 31, 1943.

More than ever before, because of an acute paper shortage, brevity is the objective to be sought in the making of a report of this character. Thus, only the barest outline of the work done in our Department can be given. This, of course, does not give any adequate picture of the work done or the responsibility assumed by our Department.

In making his report, your Counsel adheres to the convenient category employed in previous years whereby his activities have been divided into three main divisions: (a) the actual handling of malpractice actions before courts and juries and in the appellate tribunals; (b) counsel work with officers, committees, and individual members of the Society; and (c) legislative advice and activities.

Litigation.—We again call to the attention of the membership the dangers attendant upon careless, hasty, and unjustified criticism by one physician of the work of another. Many malpractice actions stem from just such criticism. The matter cannot be disposed of by saying that the criticising physician in many instances does not intend that his remarks shall result in a malpractice action. When the criticism has been made, the damage has been done.

We again call to the attention of your membership the ever present hazard of a malpractice action to the practicing physician. It should always be remembered that the rights of physicians in malpractice actions are in the hands of lay jurors, who frequently are influenced by factors that do not go to the merits of the case. In theory, sympathy, passion, prejudice, or bias has no place in the jury box. In practice, unfortunately, verdicts are frequently rendered where these elements, or some of

them, are not only present, but, indeed, are responsible for the verdict.

In this connection it should be noted that your Society has taken cognizance of these conditions and has sponsored a Group Plan of insurance. The splendid record of the Group Plan speaks for itself. It deserves and should receive the loyal support of every member of the Society. It has been in operation for over twenty years and its outstanding success is a matter of record.

At this point mention should be made of the Yorkshire Indemnity Company, the carrier under your Group Plan. This Company is entering its eighth year as such carrier. It has, in every way, lived up to all of its obligations and, in addition, has demonstrated its genuine and enthusiastic interest in the successful operation of our Group Plan. Appreciation should be recorded of the cooperation furnished by Mr. Horace Crowell, Jr., Claim Agent of The Yorkshire Indemnity Company, with whom your Counsel and office staff are in almost daily conference and consultation.

Mention should also be made of the splendid work of your Insurance Committee, headed by Dr. Clarence G. Bandler. We have conferred on a number of occasions during the reporting period with Dr. Bandler with relation to the problems before the Insurance Committee.

For many years in these reports I have had occasion to mention the splendid work of my associates, Mr. William F. Martin and Mr. Thomas H. Clearwater. I do so again this year.

For fifteen years Mr. Martin has been associated with me in the defense of malpractice actions. He is well and favorably known throughout the entire State. Your Counsel has received from all parts of the State, from judges, lawyers, and doctors, expressions of approval of Mr. Martin's fine ability as an advocate, and also his splendid personal qualities.

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"WHEREAS, the experience of the City of New York during the last fifteen years with a population that has been stationary and a 100 per cent increase in the provision of facilities for the care of medically indigent has shown that construction cannot keep pace with the demand, and

"WHEREAS, the cost per capita for such medical care is close to \$7.00 per day when the hospital census is 100 per cent or over, and would probably be \$8.00 or \$9.00 a day if an ideal census of 80 per cent were attainable, and

"WHEREAS, the home and family have been described as keystones in the arch of democracy and that the removal of the indigent sick from their homes except in cases of real necessity tends to break down the morale of the family unit, by relieving them of the necessity of caring for their own; and

"WHEREAS, it is becoming increasingly difficult to secure the services of competent physicians

or physicians in the clinics of the hospitals in large communities without the promise of compensation; and

"WHEREAS, after the war, with the demobilization of probably 45,000 physicians in the younger age groups who will probably be well organized and in a position to demand security for themselves and their families; and

"WHEREAS, unless forward-looking measures are now taken, they will return to find themselves in a more highly competitive field; and

"WHEREAS, it has been demonstrated in the *Hospital Survey of New York*, Volume II, 1937, that the care of medical indigents in their home, particularly convalescent and custodial care, after a complete hospital work-up and necessary care through the assignment of clinic physicians or other private practitioners to the care of these individuals at a designated and acceptable fee per visit will result in a much smaller cost to the municipalities and will furnish a welcome remuneration to our demobilized physicians; and

"WHEREAS, the State Department of Public Welfare is now enabled to make a contribution to the cost of the care of medical indigents throughout the State; therefore be it

"Resolved, that the Council initiate forward-looking studies toward the attainment of a more satisfactory care of medical indigents from the point of view of both the State and the physician and for the revival of a sense of responsibility for the care of their sick, aged, and crippled by the family."

This resolution was referred to the Subcommittee on Medical Relief. The subject is under observation of the Committee.

School Health Program (Section 47).—The House adopted the following resolution:

"We recommend that the Council, through its Subcommittee, continue its efforts to bring about the changes whereby supervision of health and health problems among children of school age be under the charge of physicians. If this cannot be achieved through the cooperation of the State Education Department, we recommend that further steps be taken, particularly efforts to bring the matter to the attention of Parent-Teacher Associations, to the bodies interested in the school health problem, and to the public in general; and if necessary through attempts to secure legislative action."

This has been kept in mind in negotiations with the authorities, both by the former Subcommittee on School Health Program and by its successor, the Subcommittee on Child Welfare of the Council Committee on Public Health and Education.

Discriminations in Employment of Minority Racial Groups (Section 67).—In connection with opposition to discriminations of the kind indicated, the House referred to the Council the matter of advertisements from Becton, Dickinson & Company, East Rutherford, New Jersey.

Study showed that no advertising had been in the *JOURNAL* or the *Directory*. Therefore, no action was needed.

Foreign Physicians.—Present and Future Status (Section 88).—The House adopted the following resolution:

"Resolved, that the Council take such steps in the interim between this and the next meeting of

Mr. Clearwater attended the Annual Conference of the Council Committee on Legislation with the Chairmen of the County Society Legislation Committees, held at Albany.

Conclusion.—Your Counsel closes this report, as he has in other years, by expressing his deep appreciation for the work of his office staff, and he also wishes to note with grateful thanks the advice and assistance of the members of your Society who have

helped us, both in court and in consultation, in the defense of malpractice actions.

Without the cooperation and assistance of all concerned, it would not have been possible for your Counsel to obtain the results shown in this report.

Respectfully submitted,
LORENZ J. BROSNAN, Counsel

January 31, 1943

Report of the Board of Censors

To the House of Delegates; Gentlemen:

On December 10, 1942, the Board of Censors of the Medical Society of the State of New York heard an appeal from a previous decision of the Board of Censors of the Medical Society of the County of Queens rejecting the application of a former member, Dr. E. Paul Adel, for reinstatement to membership in the said county society.

There were present at the Board: Dr. George W. Cottis, Dr. Alexander N. Selman, Dr. William W. Woodruff, Dr. Norman S. Moore, Dr. Benjamin J. Slater, and Dr. Peter Irving. There were also present the Appellant, with legal counsel, and the

Chairman of the Board of Censors of the Medical Society of the County of Queens, also with legal counsel.

The censors carefully considered the record and heard the oral testimony of witnesses of both parties. After due deliberation, they unanimously held that the ruling appeared, rejecting the application of Dr. E. Paul Adel for readmission to membership in the Medical Society of the County of Queens, in all respects, be affirmed.

Respectfully submitted,
PETER IRVING, M.D., Secretary

March 1, 1943

Amendments to Constitution and Bylaws

To the House of Delegates; Gentlemen:

At your last meeting, notice was given of 4 amendments to the Constitution and Bylaws which will come before you for action at your coming meeting on May 3, 1943. In accord with the Constitution, these are published in advance of the meeting.

These do not go to a Reference Committee but are to be considered by the House as a whole. Under the Constitution, "a two-thirds vote of the members of the House of Delegates present and voting shall be necessary for adoption."

The first is an amendment to Chapter X of the Bylaws which is entitled "Expenses."

Delete the following phrases that have to do with approval of expense vouchers by the Board of Trustees before payment.

1. In the sentence reading "Proper vouchers must be filed with the Secretary" delete the following:

"and approved by the Board of Trustees."

2. Delete the sentence reading:

"The vouchers of such expense shall be approved by the Board of Trustees before payment."

3. In the seventh line above the end of the section, as printed in the 1941 printing of Constitution and Bylaws, delete the phrase:

"and approved by the Board of Trustees."

Add at the end of the section the following sentence:

"Payment of all these expenses shall be made under directions of the Board of Trustees."

With these deletions and this addition, Chapter X as amended will then read:

Chapter X—Expenses

"Section 1. Allowances for expenses incurred in the actual performance of official duties by officers, members of the Council, the Board of

Trustees, of the Board of Censors and committees, and delegates to the American Medical Association shall be made in conformity with the following conditions: The President shall be allowed a per diem and expenses when engaged upon official business. All other officers shall be allowed traveling expenses when engaged upon official business. Members of the Council, of the Board of Trustees, and of the Board of Censors, shall be allowed traveling expenses. Members of committees of the Council and all special committees of the Society shall be allowed traveling expenses. Presidents of the District Branches sitting in the House of Delegates shall be allowed necessary expenses. There shall be no allowance made for the expenses, traveling or otherwise, for any committee appointed pursuant to Chapter XI of these Bylaws. Proper vouchers must be filed with the secretary before any of the above allowances are made. The delegates to the American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the secretary evidence of such attendance shall be allowed the actual cost of railroad transportation and Pullman accommodations to the place of meeting and return. Each district branch shall be entitled to receive a sum not to exceed \$200, exclusive of the work done by the secretary regarding notices, programs, etc., to defray the expenses of holding the annual meeting of such district branch, provided a proper statement of such expense shall have been presented to the secretary. All bills, claims, or vouchers herein provided for shall be filed within thirty days after the date of the incurring of such expense. This time may be extended for any cause by the Board of Trustees and such extension shall not exceed ninety days. Payment of all these expenses shall be made under directions of the Board of Trustees."

The second is an amendment to Section I of Chapter II, as follows:

TABLE 1.—NUMBER OF SUITS INSTITUTED AND DISPOSED OF IN 1942-1943

	Instituted 1942-1943 (12 months)	Disposed of 1942-1943 (12 months)
1. Fractures, etc.....	24	17
2. Obstetrics, etc.....	10	18
3. Amputations.....	4	1
4. Burns, x-rays, etc.....	22	27
5. Operations: abdominal, eye, tonsil, ear, etc.....	26	47
6. Needles breaking.....	..	2
7. Infections.....	8	12
8. Eye infections.....	..	3
9.....	11	17
10.....	..	1
11.....	15	19
Totals.....	120	164
Actions for death.....	12	12
Infants' actions.....	10	11
Totals.....	22	23
<i>How Disposed of</i>		
Settled.....		48
Terminated in favor of defendant physician.....		111
Judgment for Plaintiff.....		5
		164
Pending on January 31, 1943.....	369	

Mr. Thomas H. Clearwater, the Attorney for your Society, is well known to your membership and to your officers and committeemen. Mr. Clearwater is a gentleman of exceptional ability and character and has rendered to the Society and to your Counsel at all times the fullest measure of cooperation and support.

We cannot leave this subject without paying tribute to the splendid spirit of industry, loyalty, and devotion manifested by your Counsel's entire staff, both legal and clerical.

With this preliminary statement we note that there were commenced within the present reporting period 120 cases. These figures, of course, do not include a number of claims outstanding, on which suit may ultimately be brought. Of equal importance with the actual work of litigation is the preventative work done by your Counsel and his office staff. Throughout the year we are in consultation with many claimants and their attorneys, and frequently we have been successful in demonstrating to them that in fact and in law no valid claim exists. Thus these claims never reach a suit stage.

Table 1 shows that during the present reporting period we disposed of 164 cases. Forty-eight of these cases were settled and 111 terminated successfully in favor of the physician. In 5 cases there were judgments for the plaintiff.

We note from Table 1 that there were pending as of January 31, 1943, 369 cases.

Counsel Work.—During the period of this report, your Counsel, as in the past, prepared for the Society's JOURNAL articles in the nature of editorial comment dealing with interesting cases decided by courts and also including two articles upon the extremely important Soldiers' and Sailors' Civil Relief Act. Your Counsel has also prepared for publication in the JOURNAL a number of inquiries and answers thereto, relating to legal questions considered to be of general interest to the profession and has digested for the JOURNAL certain cases handled by your Counsel considered to be of interest.

Your Counsel is pleased to learn from the members of your Society from time to time that these reports

and articles are found to be interesting and instructive. In addition to his other duties, your Counsel receives frequent requests for opinions, both oral and in writing, on topics too numerous to refer to in detail within the limited space of this report. A few of the matters upon which advice has been given during the past year are the following:

Administration of injections by nurses; use of drugs of unknown nature; marriage of persons with positive Wassermann reactions; confidential nature of x-ray films; medical services rendered under contract; examination of hospital records by lay persons; leases and military service; operative consents; venereal disease and employment; contracts with substitute physicians; hospitals' duty to accept patients; licenses of foreign physicians; hospitals' control over its professional staff; scope of practice of nursing; assistance to physicians by persons other than nurses; liability of Army physicians; diathermy treatment by assistant; sterilization of patients; responsibility for acts of interns; fee of anesthetist; consent to plastic surgery; interns and Workmen's Compensation; physician and nurse anesthetists; physician's liability for acts of subordinates; employment of anesthetist by physician.

Other Counsel Activities.—Your Counsel, acting with the Committee on Bylaws, examined various proposed amendments to the Constitution and Bylaws of a number of component county societies and has rendered advice and made suggestions in connection therewith.

Your Counsel drew the contracts between Mr. Kent Lighty and the State Society with reference to advertising matter in the NEW YORK STATE JOURNAL OF MEDICINE, the *Medical Directory of New York, New Jersey, and Connecticut*, and the Commercial Exhibits, and conferred with the members of the Publication Committee with reference to the situation resulting from the death of Mr. Lighty.

Your Counsel drew the contract between the Society and Dr. Joseph S. Lawrence, its Executive Officer.

Your Counsel also drew the contract between the Society and Mr. Dwight Anderson, as director of the Public Relations Bureau and business manager of the NEW YORK STATE JOURNAL OF MEDICINE and the *Medical Directory of New York, New Jersey, and Connecticut*.

Your Counsel has conferred at various times with members of the various committees on certain phases of their work.

Your Counsel attends and advises at the regular meetings of the Council of your Society.

Your Counsel is constantly in communication by telephone and letter with Dr. Peter Irving, secretary and general manager of the Society, and with Mr. Dwight Anderson with regard to the many questions which arise almost daily in connection with their work.

It should also be noted that daily telephone calls from members of the Society come to your Counsel and his office staff. These calls require advice and assistance on various problems. Many of these telephone inquiries present emergency situations which cannot be handled by correspondence.

Legislative Advice and Activities.—During the period of time that the Legislature was in session in 1942, and at the opening of the 1943 session, your Counsel examined certain bills affecting the medical profession and gave advice with respect thereto, and conferred also with the Executive Officer of the Society regarding such bills on various occasions.

At the morning session, we were addressed first by Dr. Thomas A. McGoldrick, Chairman of the Brooklyn Branch of the National Physicians Committee, Chairman of the Committee on Military and Naval Affairs and Civilian Defense of the Medical Society of the County of Kings, and President-Elect of the Medical Society of the State of New York.

Dr. McGoldrick's topic was "Recent Trends in the Economics of Medicine." He was followed by Dr. Henry W. Cave, Director of the Procurement and Assignment Service of the Second Service Command, who spoke on "The Procurement and Assignment Service as It Affects Physicians."

Dr. Joe R. Clemmons and Dr. Louis H. Bauer led the discussion of Dr. Cave's paper.

The luncheon session was attended by sixty members of the four component county societies and about an equal number of members of the four woman's auxiliaries.

Present also at the luncheon were the following officials of the Medical Society of the State of New York: Dr. Peter Irving, Secretary and General Manager; Dr. Joseph Lawrence, Executive Officer; Dr. Louis H. Bauer, Speaker of the House of Delegates; and Mr. Dwight Anderson, Director, Public Relations Bureau.

We were much honored in having Dr. George W. Cottis, President of the Medical Society of the State of New York, as the guest speaker at this session. Dr. Cottis presented a masterly paper on "Medicine of the Future—Evolution or Revolution."

The nominating committee presented the names of the following physicians for office for the ensuing two years: president, Dr. Francis G. Riley, Jamaica; first vice-president, Dr. John B. D'Albora, Brooklyn; second vice-president, Dr. Charles W. Martin, Woodmere; secretary-treasurer, Dr. Charles F. McCarty, Brooklyn.

On motion, duly seconded, these gentlemen were unanimously elected.

Seated at the speaker's table at the luncheon were the following representatives of the woman's auxiliaries: Mrs. J. Emerson Noll, president, New York State Woman's Auxiliary; Mrs. J. S. Kice, chairman, National Committee on Legislation; Mrs. William J. Godfrey, president, Queens County Woman's Auxiliary; Mrs. John L. Bauer, president, Kings County Woman's Auxiliary; Mrs. Arthur D. Jacques, president, Nassau County Woman's Auxiliary; Mrs. George P. Bergmann, president, Suffolk County Woman's Auxiliary.

The afternoon session, devoted to war injuries, was ably covered by Dr. Charles E. Bove, former director of surgery at the American Hospital in Paris, whose topic was "The Treatment of War Burns," and Dr. Irwin E. Siris, assistant professor of surgery, New York University School of Medicine and attending surgeon at Bellevue Hospital, who talked on "The Emergency Treatment and Transportation of Fractures." Excellent moving pictures accompanied this talk.

In spite of the difficulties of restricted traveling and the absence of many members who are serving in the armed forces, the meeting was regarded as highly successful by everyone who attended.

Respectfully submitted,

BURDGE P. MACLEAN, M.D., *President*
March 2, 1943

Third District Branch

To the House of Delegates; Gentlemen:

The annual meeting of the Third District Branch was held at the Wolfert's Roost Country Club, Al-

bany, New York, in September, 1942, with an excellent attendance.

Among the speakers was Dr. Louis H. Bauer, of Hempstead, who gave an exceptionally fine talk on aviation medicine. President George W. Cottis was also present and gave to the members of the Third District a very direct talk on our position in present-day affairs.

The main speaker was the Honorable Judge William H. Wadhams, who held the audience spellbound with an address on France and India. It was generally conceded that this was the finest talk that has been heard at a district branch meeting.

The Third District Branch has cooperated exceedingly well with the Office of Procurement and Assignment and has furnished more than its quota of doctors to the armed service.

At the business section of the meeting, Dr. Stephen H. Curtis was elected president, and Dr. Homer L. Nelms was elected first vice-president.

Respectfully submitted,

MAHLON H. ATKINSON, M.D., *President*
March 2, 1943

Fourth District Branch

To the House of Delegates; Gentlemen:

The thirty-sixth annual meeting of the Fourth District Branch of the Medical Society of the State of New York was called to order at 11:30 A.M. on Friday, September 18, 1942, in the Nurses' Home at the Mary McClellan Hospital in Cambridge, New York.

The program was divided into two parts. The first was given over to a report by various officers of the State Society on the activities and functions of the Society. On this part of the program, Dr. Peter Irving, the Secretary, was the first speaker. He outlined the Society organization, explained the duties of the Council and Committees, and told how they worked. Dr. Joseph Lawrence, the Executive Officer, followed, speaking of the importance of the Committee on Legislation. He stressed the fact that it is incumbent upon all members and also upon all of the various county societies, as well as the State Society, to keep informed on all legislative matters dealing with medicine. Dr. O. W. H. Mitchell, of Syracuse, the chairman of the Committee on Public Health and Education, described the various programs being carried on by his Committee and pointed out that it is possible for his Committee to help any community in the state that is anxious to have postgraduate instruction. Dr. Floyd S. Winslow of Rochester, chairman of the Committee on Medical Publicity, spoke on the importance of proper publicity and, among other things, recommended to the members of the Society the new book by Mr. Dwight Anderson and Miss Margaret Baylous, *When Doctors Are Rationed*. Dr. Herbert H. Bauckus, of Buffalo, chairman of the Committee on Public Relations and Economics, discussed the importance of giving thought to satisfactory public relations. Dr. David Kaliski, of New York, director of the Workmen's Compensation Bureau, spoke on the work of the Bureau. He stated that a new fee schedule is being negotiated with the carrier and that to this end it is extremely important that doctors advise the Bureau of the increases in their own cost of practice. Mr. Thomas H. Clearwater, speaking for Mr. Brosnan, our Counsel, covered the subject of Malpractice Defense and Insurance. He stressed the importance of maintaining a policy even while in service, and he also reported that the change of the master policy to the

"Section 1. The House of Delegates shall be composed of (a) Delegates elected by the component County Medical Societies; (b) Officers of the Society and other members of the Council and of the Board of Trustees; (c) the Presidents of the District Branches sitting as District Delegates; and (d) *a representative from each Scientific Section to be elected by each such Section*. Past-Presidents of the Society shall be life members of the House of Delegates. Each component County Society shall be entitled to elect as many delegates as there shall be State Assembly Districts in such county at the time of the election, but each component County Medical Society shall be entitled to elect at least one delegate. A component Society representing by its name more than one county shall be entitled to as many delegates as there are Assembly Districts in the counties named in the title of such society."

The third adds a new Article, No. XIV, to the Constitution; and the fourth adds a new Section, No. 4, to Chapter XII of the Bylaws.

Article XIV

Medical Benevolence Fund

"There shall be created a Benevolence Fund under the terms and conditions outlined in Chapter XII, Article 4, of the Bylaws. For this purpose there shall be appropriated by the Trustees out of the funds of the Society a sum not to exceed fifty cents per active member per year, to be set aside by the Treasurer as a special fund for the purpose of this Article. This fund shall be kept separate and invested or distributed by direction of the Board of Trustees of the Society under rules and regulations approved by the latter. The fund shall be used only for the relief

of pecuniary distress of sick or aged members who are or have been active members in good standing of the Society."

Chapter XII, Section 4 Special Committees

"Section 4—The President of the Society shall appoint, immediately after the Annual Meeting, a special committee of five to be known as the *Special Committee on Benevolence of the Medical Society of the State of New York*, consisting of two members from the Board of Trustees to be selected by the Chairman of the latter, the Treasurer, the Secretary, and a representative from the Woman's Auxiliary of the State Society to be selected by its President. This Committee shall select its own Chairman and have absolute jurisdiction over the distribution of such funds as have been allotted by the Society's Finance Committee from current income after appropriation by the Board of Trustees. No moneys shall be paid except on warrants signed by the Chairman of the Committee and the Treasurer. The Committee shall formulate rules and regulations for the acceptance of beneficiaries for consideration and approval by the Council. It may solicit subscriptions, donations, and legacies to be added to the principal of the Benevolence Fund. It shall present a detailed audit of receipts and expenditures, included in an annual report of its activities to the Council and the House of Delegates."

Respectfully submitted,
LOUIS H. BAUER, M.D., *Speaker*
PETER IRVING, M.D., *Secretary*

March 1, 1943

Reports of the District Branches

First District Branch

To the House of Delegates; Gentlemen:

The First District Branch held its annual meeting on Wednesday, October 7, 1942, at Yonkers, New York, at St. Joseph's Hospital.

The exigencies of war, with its concomitant uncertainties, caused a deviation from the policy of the past few years. Instead of the one-day postgraduate and refresher course that has come to be the usual procedure in the district, and with a feeling that there had been many lectures on war surgery, it was decided that in this instance the meeting would cater to the needs of those physicians remaining at home, many of whom will have been brought back from partial retirement to the field of the general practitioner.

Dr. Raphael Kurzkrok, of New York City, spoke on the "Status of Modern Estrogen Therapy." Dr. Byron P. Stookey, of New York City, spoke on "Low Back and Sciatic Pain: Its Relation to Neurosurgery," with special reference to the syndrome of nucleus pulposus. Other speakers were Dr. Lloyd F. Craver, of New York City, who spoke on "The Scope of Modern Radiotherapy," and Dr. Harry Gold, of New York City, who explained the "Newer Advances in Digitalis Therapy." Dr. Gold brought forth several revolutionary ideas in the pharmacology of digitalis.

Those attending the meeting were luncheon guests of the hospital. Dr. George Cottis, president of the

State Society, gave an interesting talk urging the medical profession to reappraise its position in a changing world and asserted that "the wave of world revolution having broken out on our own shores, all of us doctors must consider what lies ahead of us."

Dr. Henry W. Cave, in charge of Procurement and Assignment for the Second Service Command, explained the needs of the armed forces and medicine's response to the country's call. Dr. Joe R. Clemmons, in charge of Procurement and Assignment for New York State, described the requirements that the physicians of this state must meet.

The following officers were elected to guide the district for the term 1943 to 1945: Dr. James G. Morrissey, Yonkers, president; Dr. Scott L. Smith, Poughkeepsie, first vice-president; Dr. Harold F. Morrison, Tuxedo Park, second vice-president; Dr. Henry W. Miller, Brewster, treasurer; Dr. Isidore J. Landsman, Bronx, secretary.

Respectfully submitted,
ALEXANDER N. SELMAN, M.D., *President*
March 2, 1943

Second District Branch

To the House of Delegates; Gentlemen:

The annual meeting of the Second District Branch was held at the Garden City Hotel, Garden City, on October 28, 1942.

At the morning session, we were addressed first by Dr. Thomas A. McGoldrick, Chairman of the Brooklyn Branch of the National Physicians Committee, Chairman of the Committee on Military and Naval Affairs and Civilian Defense of the Medical Society of the County of Kings, and President-Elect of the Medical Society of the State of New York.

Dr. McGoldrick's topic was "Recent Trends in the Economics of Medicine." He was followed by Dr. Henry W. Cave, Director of the Procurement and Assignment Service of the Second Service Command, who spoke on "The Procurement and Assignment Service as It Affects Physicians."

Dr. Joe R. Clemmons and Dr. Louis H. Bauer led the discussion of Dr. Cave's paper.

The luncheon session was attended by sixty members of the four component county societies and about an equal number of members of the four woman's auxiliaries.

Present also at the luncheon were the following officials of the Medical Society of the State of New York: Dr. Peter Irving, Secretary and General Manager; Dr. Joseph Lawrence, Executive Officer; Dr. Louis H. Bauer, Speaker of the House of Delegates; and Mr. Dwight Anderson, Director, Public Relations Bureau.

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March 2, 1943

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Yorkshire Indemnity has worked very well. These officers answered many questions from the floor.

On the afternoon session there were two scientific papers. The first was by Dr. Robert Levy, of New York, who spoke on "Cardiac Pain—Its Significance and Treatment." During this talk he stressed the relationship between cardiac pain and insufficient oxygenation of the myocardium. In support of this he mentioned the work that has been done with low-oxygen mixtures as a diagnostic aid in suspected coronary disease. He also demonstrated the efficiency of aminophylline in controlling symptoms. Dr. John M. Swan, of Rochester, the executive secretary of the New York State Committee of the American Society for the Control of Cancer, Inc., discussed the cancer problem and brought up the work of the group of Rochester hospitals, showing the number of five- and ten-year cures. This was followed by a lively discussion. During the meeting there were two other talks which were not scheduled but which were nevertheless very much worth while. The first was by Major Edward K. Reid, director of the Medical Officers Recruiting Board of the State of New York. He spoke of the functions of the Procurement and Assignment Service and stated that their problem was now almost entirely complete, that there were very few physicians of the age group certified as available by their county boards who had not yet been placed. He also justified the earlier advice to the younger men to get in service, saying that on the fifteenth of the month he had received a telegram that commissions in a grade higher than First Lieutenant were no longer to be awarded. Dr. Lee Preston, Chief Medical Officer of the New York State War Council, also spoke and told of the plans of the Council. He stated that the Emergency Medical Service in the various communities had been crippled because of men constantly being called to the colors. However, he said that this condition was practically over, and very soon it should be possible to settle upon a stable organization.

At the beginning of the afternoon session a nominating committee, composed of Dr. Morris Maslon, of Glens Falls, Dr. Denver M. Vickers, of Cambridge, and Dr. J. Woods Price, of Saranac Lake, reported a slate of officers for the next two years. The officers were: president, Dr. Harold A. Peck, of Glens Falls; first vice-president, Dr. Frank Finney, of Malone; second vice-president, Dr. Denver M. Vickers, of Cambridge; secretary, Dr. F. Leslie Sullivan, of Scotia; treasurer, Dr. Gilberto S. Pesquera, of Mount McGregor.

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The attendance was small, the registration being 55, of whom 40 were from the district. As was to be expected, there were very few of the younger men present.

Respectfully submitted,

WILLIAM WARRINER WOODRUFF, M.D., *President*
March 2, 1943

Fifth District Branch

To the House of Delegates; Gentlemen:

The annual meeting of the Fifth District Branch was held Thursday, September 24, 1942, at the Teugega Club at Rome. There were 58 members present.

The program was opened at 10:00 A.M. with an interesting paper on "Care of the Aged in Civilian Defense" by Dr. James W. W. Dimon, of Utica. There followed two talks on wartime medicine, both of an up-to-date nature. Dr. Emmett A. Dooley, assistant clinical professor of surgery, New York Post-Graduate Medical School, spoke on "The Treatment of Burns"; and Dr. Leon E. Sutton, professor of clinical surgery at the Syracuse University College of Medicine, went into "The Problem of Healing in Deep Burns." Both of these presentations were excellent. The discussion which followed was both profitable and interesting.

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Respectfully submitted,

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The first wartime meeting of the Society in twenty-four years registered a sharp decline in registration. However, the usual interest of those present made the small attendance but slightly noticed.

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Boas, associate attending physician at Mount Sinai Hospital, New York City; "Nutrition: Survey of Recent Findings and a Discussion of General Problems" by Dr. L. A. Maynard, director of the School of Nutrition, Cornell University, Ithaca; and "Progress Report of Medical Recruiting in the Sixth District Area" by Major Edward K. Reid, U.S. Army.

At the afternoon session a symposium on Medical Indemnity Insurance was held. This method of presentation of a subject was an innovation, highly successful. The panel consisted of Dr. Frederick M. Miller, Jr., of Utica, Dr. Harvey P. Hoffman, of Buffalo, and Dr. Frederick E. Elliott, of Brooklyn. The chairman of the meeting acted as coordinator. Each speaker on the panel spoke for twenty minutes. The chairman then called for questions from the floor. He referred them to panel participants for answer. Many questions were asked, resulting in a thorough discussion of the subject.

At the conclusion of the symposium, Dr. W. D. Ludlum gave a brief report on the objectives of the National Physicians Committee. Following a discussion of this report, the meeting was adjourned.

Respectfully submitted,
NORMAN S. MOORE, M.D., *President*

March 2, 1943

Seventh District Branch

To the House of Delegates; Gentlemen:

The annual meeting of the Seventh District Branch was held on Wednesday, September 23, 1942, at the Academy of Medicine in Rochester. There were 218 members present.

The meeting was called to order at 9:45 A.M., and motion sound pictures were shown, for which the films had been provided by the British Information Services. They brought home to the physician-problems which they may meet both in the war and in civilian life. Their titles follow: "London Fire Raids," "London Can Take It," "Lofoten Raid," "Morning Paper," "Three in a Shell Hole," and "Historic Record."

Two papers were then read on subjects of ever pressing interest. Dr. Nolan D. C. Lewis, professor of psychiatry, College of Physicians and Surgeons, Columbia University, spoke on "The Psychological Problems of Age." He brought out the fact that the older members of the profession must now bear an ever increasing burden in caring for civilian health.

Dr. Cornelius P. Rhoads, director, Memorial Hospital, New York City, then spoke on "The Modern Conception and Treatment of Cancer," bringing the audience up to date on the cancer problem.

After luncheon, officers of the State Medical Society were introduced: Dr. Joseph S. Lawrence, Executive Officer; Mr. Dwight Anderson, Director of the Bureau of Public Relations; Dr. Peter Irving,

Secretary and General Manager; and Dr. George W. Cottis, President. Dr. Cottis expressed his deep conviction that the profession should keep in step with modern sociologic trends in order to take leadership in finding the best ways to succeed in caring for the sick.

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The morning session opened at 10:00 A.M. with a symposium of "Effects of War Gases." Dr. Stephen J. Walczak, Dr. Ramsdell Gurney, and Dr. Harvey P. Hoffman, of Buffalo, discussed this important subject in up-to-date fashion.

Dr. Herbert H. Baucus, of Buffalo, Chairman of the Public Relations and Economics Committee of the Council, then spoke on the subject of "Medical Expense Indemnity Insurance." He expressed the great desire of the State Society administration, to effect further promotion of this nonprofit insurance than has so far occurred in New York.

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In the afternoon Dr. William D. Stroud, professor of cardiology, Jefferson Medical College, Philadelphia, read a paper on "Cardiac Pain." Dr. Herman E. Pearce, Jr., assistant professor of surgery, University of Rochester School of Medicine and Dentistry, gave a talk illustrated by lantern slides on "Peripheral Vascular Diseases."

Since Dr. Robert C. Peale, President of the Branch, is absent on leave from his State Society duties for service in the Army, reporting on County activities falls to me as vice-president.

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PETER J. DI NATALE, M.D., *Vice-President*

March 1, 1943

1943 Annual Meeting

Medical Society of the State of New York

May 3, 4, 5, 6—The Hotel Statler, Buffalo

House of Delegates

The regular Annual Meeting of the House of Delegates of the Medical Society of the State of New York will be called to order at 10:00 A.M. on Monday, May 3, in the Assembly Room on the Seventeenth Floor.

In accordance with Chapter II, Section 3, of the Bylaws, the House will assemble according to the following schedule:

MONDAY, MAY 3, 1943
10:00 A.M. and 3:00 P.M.
TUESDAY, MAY 4, 1943
9:00 A.M. and 1:00 P.M.

At the last adjourned session (1:00 P.M., Tuesday), the election of officers, councilors, trustees, and delegates will occur in accordance with Chapter III, Section I, of the revised Bylaws.

LOUIS H. BAUER, M.D., *Speaker*
PETER IRVING, M.D., *Secretary*

137th Annual Meeting

This year a change of meeting time for the Annual Meeting has been set following the decision to have no banquet. The Annual Meeting will take place at 2:30 P.M., or as near thereafter as possible, following adjournment of the last session of the House of Delegates. The place will be the Seventeenth Floor. The Society will be called to order by the President, with reading of the minutes by the Secretary.

GEORGE W. COTTIS, M.D., *President*
PETER IRVING, M.D., *Secretary*

Registration

Registration will be held in the Hotel—for delegates on Monday, May 3, after 9:00 A.M.; for members, on Monday, Tuesday, Wednesday, and Thursday, May 3, 4, 5, 6, from 9:00 A.M. to 6:00 P.M.

Exhibits

Scientific and Technical exhibits will be located in the Hotel.

Scientific Motion Pictures will be shown.

Scientific Sessions

General Sessions on Tuesday and Thursday afternoons. Section and Session meetings will be held on Tuesday morning, Wednesday morning and afternoon, and Thursday morning.

Civilian Defense in New York State

A dinner meeting on Civilian Defense will be held on Tuesday, May 4, at 7:00 P.M., in the Ballroom, under the auspices of the Medical Society of the State of New York, the Office of Civilian Defense, and the Second Service Command and the Health Preparedness Commission of the State of New York. Tickets may be secured at the registration desk.

New York State Association of School Physicians

This year the School Physicians, on invitation, will hold meetings in the afternoon and evening of Monday, May 3, with a dinner to be arranged. (See page 674 for program.)

Tuberculosis Luncheon

The Subcommittee on Tuberculosis and Chest Diseases will hold a luncheon at 12:00 NOON, Wednesday, May 5, in the Chinese Room. All those concerned with tuberculosis from state and local aspects will be welcome.

Woman's Auxiliary

See April 15 issue for the program.

Scientific Program

The Committee:

D. Dexter Davis, M.D., *Chairman*, Brooklyn; and
Chairman of Sections and Sessions

GENERAL SESSIONS

(*Dr. Davis presiding*)

The presentations at these Sessions will consist of one-half hour lectures, without discussion. The meetings will start promptly at the hour specified. Members are requested to be in their seats at least five minutes in advance of the meeting time.

Tuesday, May 4—2:30 P.M.

Hotel Statler, Assembly Room, 17th Floor

1. "British and American Experiences in Civil Defense" Colonel George Baehr, Chief Medical Officer, Office of Civilian Defense, Washington, D.C.
2. "Summary of the Modern Treatment of War Injuries"
Captain Reynolds Hayden, M.C., U.S.N.,
Commandant Third Naval District, New York
3. "Care of Soft Tissue Injuries"
Forrest Young, M.D., Assistant Professor of Surgery, University of Rochester, School of Medicine, Rochester
4. "Continuous Caudal Analgesia in Obstetrics: Demonstration of Catheter Technic for Administration"
(The A. Walter Suiter Lectureship. . . . This will be the fifth lecture to be delivered under this lectureship fund.)
Francis R. Irving, M.D., Professor of Clinical Obstetrics, Syracuse University, College of Medicine, Syracuse
C. Albertson Lippencott, M.D., Syracuse
Frank Meyer, M.D., Syracuse

Thursday, May 6—2:00 P.M.

Hotel Statler, Assembly Room, 17th Floor

SYMPOSIUM

PLASMA

1. "The Physiologic Aspects of Shock and Its Treatment with Plasma and Other Blood Substitutes"
H. Necheles, M.D., Ph.D., Professorial Lecturer, Department of Physiology, University of Chicago, Chicago, Illinois
2. "Laboratory Aspects of the Preparation and Biologic Control of Plasma"
A. Milzer, M.S., Ph.D., Associate in Research and Production Bacteriologist of Serum Center, Michael Reese Hospital, Chicago, Illinois
3. "Principles and Methods of Desiccation of Plasma"
F. Oppenheimer, Ph.D., Physicist in charge of Production and Research of the Serum Center, Michael Reese Hospital, Chicago, Illinois
4. "The Clinical Application of Plasma"
Sidney O. Levinson, M.D., Director of The Samuel Deutsch Convalescent Serum Center, and Chairman, Blood Plasma Committee, Civilian Defense, Metropolitan Chicago Area, Chicago, Illinois

SECTIONS

All papers read before the Society by members become the property of the Society. The original copy of each paper shall be left with the secretary of the section.

Discussers should have their remarks typed, double-spaced, and hand them to the secretary.

Time limits: Twenty minutes for each paper, five minutes for individual discussion.

Section meetings shall begin promptly at the hour specified.

SECTION ON
ANESTHESIOLOGY

Chairman . . Clifford E. McElwain, M.D., Syracuse
Vice-Chairman . . . F. Paul Ansbro, M.D., Brooklyn
Secretary Milton C. Peterson, M.D., New York

Tuesday, May 4—10:00 A.M.
Hotel Statler, Room 310

Address of Welcome

John H. Evans, M.D., Buffalo

Chairman's Address: "Anesthesiology and the Autonomic Nervous System"

F. Paul Ansbro, M.D., Brooklyn

1. "The Narcotic Properties of Carbon Dioxide"
M. H. SeEVERS, M.D., Ann Arbor, Michigan
(By invitation)
Discussion: E. A. ROVENSTINE, M.D., New York
2. "Anesthesia for the Aged"
Evelyn Apogi, M.D., New York (By invitation)
Discussion: Charles J. Wells, M.D., Syracuse
3. "Prolonged Intravenous Pentothal Anesthesia for Military Surgery"
Captain Barnett A. Greene, M.C., A.U.S.,
Fort Monmouth, New Jersey
Discussion: Rose M. Lenahan, M.D., Buffalo

Wednesday, May 5—2:00 P.M.
Hotel Statler, Room 310

1. "Anesthesia for Thoracic Surgery"
Benjamin E. Etsten, M.D., Albany
Discussion: Lorenzo J. Pico, M.D., Brooklyn
2. (Title to be announced later)
Major Stevens J. Martin, M.C., A.U.S.,
New York
Discussion: Henry K. Beecher, M.D., Boston,
Massachusetts (By invitation)

ROUND-TABLE DISCUSSION
ANESTHESIOLOGY AS APPLIED TO WAR
CASUALTIES

Paul M. Wood, M.D., New York, Chairman
Virginia Apgar, M.D., New York
John C. Dessloch, M.D., Rochester
Clarence J. Durshordwe, M.D., Buffalo
E. A. Rovenstine, M.D., New York

SECTION ON
DERMATOLOGY AND SYPHILOLOGY

Chairman . . Rudolph Ruedemann, Jr., M.D., Albany
Secretary Maurice J. Costello, M.D., New York

Wednesday, May 5—10:00 A.M.
Hotel Statler, Room 306

1. "Crude Liver Extract as a Supportive Measure in Arseno—or Heavy Metal Therapy"
Girsch D. Astrachan, M.D., New York
Discussion: Paul Gross, M.D., New York
2. "Tuberculous Lesions of the Skin"
Anthony C. Cipollaro, M.D., New York
3. "Cutaneous Moniliasis"
Paul E. Bechet, M.D., New York
Discussion: Royal M. Montgomery, M.D.,
New York
4. "Occupational Acnes"
Louis Schwartz, M.D., Bethesda, Maryland
(By invitation)
Discussion: Louis Tulipan, M.D., New York

Thursday, May 6—10:00 A.M.
Hotel Statler, Room 306

1. "Eczema Vaccinatum"
Frank C. Combes, M.D., New York
Howard T. Behrman, M.D., New York
Discussion: Maurice J. Costello, M.D., New
York
2. "Cutaneous Eruptions Produced by Sulfonamides: A Report of Two Cases of Bullous Eruption Following the Administration of Sulfonamide Drugs, One of Which Resembled Pemphigus Vulgaris"
David Bloom, M.D., New York
3. "Fever as an Adjuvant to Specific Therapy in Syphilis"
Evan W. Thomas, M.D., New York
Discussion: Harry C. Saunders, M.D., New
York
4. "The Significance of Absent Pharyngeal and Corneal Reflexes in Cutaneous Diseases"
Thomas N. Graham, M.D., New York
George M. Lewis, M.D., New York
Discussion: Howard Fox, M.D., New York
5. "The Etiology of Psoriasis"
Arthur E. Goldfarb, M.D., New York

SECTION ON GASTROENTEROLOGY AND PROCTOLOGY

Chairman.....
H. Walden Retan, M.D., Syracuse (In Service)
 Vice-Chairman.....F. Leslie Sullivan, M.D., Scotia
 Secretary.....Stockton Kimball, M.D., Buffalo

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1. "Fat and Vitamin A Absorption in Sprue"
 David Adlersberg, M.D., New York
 Discussion: Henry A. Rafsky, M.D., New York
2. "The Treatment of Peptic Ulcer"
 Edward F. Driscoll, M.D., Buffalo
 Abraham H. Aaron, M.D., Buffalo
 Discussion: John D. Stewart, M.D., Buffalo
3. "The Treatment of Gallbladder Disease"
 Albert F. R. Andresen, M.D., Brooklyn
 Discussion: I. Harris Levy, M.D., Syracuse
4. "The Diagnosis and Treatment of Lympho-granuloma Venereum of Colon, Rectum, and Anus"
 Charles B. Jones, M.D., Brooklyn
 Discussion: Descum D. McKenney, M.D., Buffalo

Wednesday, May 5—2:00 P.M.
 Hotel Statler, Room 306

SYMPOSIUM CARCINOMA OF THE COLON AND RECTUM

1. "Carcinoma of the Colon: Diagnostic Criteria for Early Recognition"
 Burrill B. Crohn, M.D., New York
 Discussion: Ralph J. McMahon, M.D., John-son City
2. "The Diagnostic and Therapeutic Value of X-ray in Carcinoma of the Colon"
 Edward C. Koenig, M.D., Buffalo
 Gordon J. Culver, M.D., Buffalo
 Discussion: Kencil L. Mitton, M.D., Schenectady
3. "Carcinoma of the Large Intestine"
 Frederick F. McGauley, M.D., Schenectady
 Discussion: Arthur M. Dickinson, M.D., Albany
4. "Peritonitis Secondary to Perforation in Carcinoma of the Colon"
 Philip D. Allen, M.D., New York
 Discussion: William S. Brady, M.D., Utica

SECTION ON INDUSTRIAL MEDICINE AND SURGERY

Chairman... Leonard Greenburg, M.D., New York
 Secretary... Orvis H. Brenenstuhel, M.D., Albany

This program is designed to answer questions which may be raised on the subject of industrial medical services by any of the speakers or any of the members of the audience. As a result of this discussion, we should be able to come away from the meeting with a report which later might be printed in the JOURNAL and which would serve as a guide to this problem in the State of New York.

The first three papers are to be presented in brief form and are to serve as a background for a general discussion of all phases of the problem of industrial medical services.

Tuesday, May 4—10:00 A.M.
 Hotel Statler, Room 308

SYMPOSIUM MEDICAL SERVICES IN INDUSTRY

1. "The Functions of the Industrial Medical Service"
2. "The Industrial Medical Provisions for Various Sizes of Plants, Both Personnel and Physical Equipment"
3. "The Integration of the Industrial Medical Services with Medical Services in the Community and the Social Agencies of the Community"

Wednesday, May 5—2:00 P.M.
 Hotel Statler, Room 308

1. "The Nutrition of the Industrial Worker and Industry's Part in This Problem"
2. "What Shall We Do About Physical Defects in the General Population?"
3. "The Medical Aspects of Absenteeism in Industry"

SECTION ON MEDICINE

Chairman... J. Stanley Kenney, M.D., New York
 Vice-Chairman.....
Frederic W. Holcomb, M.D., Kingston
 Secretary... Julian M. Freston, M.D., New York

Wednesday, May 5—10:00 A.M.
 Hotel Statler, Assembly Room, 17th Floor
 JOINT MEETING WITH THE SECTION ON
 SURGERY
 (See Section on Surgery)

Thursday, May 6—10:00 A.M.
 Hotel Statler, Room 310

1. "Treatment of Pneumonia with Sodium Sulfa-pyridine and Sodium Sulfathiazole Administered Orally"
 Elmer H. Loughlin, M.D., Brooklyn
 Richard H. Bennett, M.D., Brooklyn
 Samuel H. Spitz, M.D., Brooklyn
 Mary E. Flanagan, B.S., Brooklyn
2. "Light Transition Forms Between Mental Health and Mental Disease"
 B. Liber, M.D., New York
3. "Preventive Aspects of Coronary Disease"
 Milton Plotz, M.D., Brooklyn
4. "New Objective (Photoelectric) Method for the Determination of Circulation Time"
 Benjamin Jablons, M.D., New York
 Jules Cohen, M.D., New York (By invitation)
 M. Y. Swirsky, M.D., New York (By invitation)

SECTION ON NEUROLOGY AND PSYCHIATRY

Chairman... Noble R. Chambers, M.D., Syracuse
 Secretary... Angus M. Frantz, M.D., New York

Wednesday, May 5—10:00 A.M.
 Hotel Statler, Room 308

1. "Bilateral Blindness Due to Lesions in Both Occipital Lobes"

SECTIONS

All papers read before the Society by members become the property of the Society. The original copy of each paper shall be left with the secretary of the section.

Discussers should have their remarks typed, double-spaced, and hand them to the secretary.

Time limits: Twenty minutes for each paper, five minutes for individual discussion.

Section meetings shall begin promptly at the hour specified.

SECTION ON
ANESTHESIOLOGY

Chairman... Clifford E. McElwain, M.D., Syracuse
Vice-Chairman... F. Paul Ansbro, M.D., Brooklyn
Secretary... Milton C. Peterson, M.D., New York

Tuesday, May 4—10:00 A.M.
Hotel Statler, Room 310

Address of Welcome

John H. Evans, M.D., Buffalo

Chairman's Address: "Anesthesiology and the Autonomic Nervous System"
F. Paul Ansbro, M.D., Brooklyn

1. "The Narcotic Properties of Carbon Dioxide"
M. H. SeEVERS, M.D., Ann Arbor, Michigan
(By invitation)
Discussion: E. A. ROVENSTINE, M.D., New York
2. "Anesthesia for the Aged"
Evelyn Apogi, M.D., New York (By invitation)
Discussion: Charles J. Wells, M.D., Syracuse
3. "Prolonged Intravenous Pentothal Anesthesia for Military Surgery"
Captain Barnett A. Greene, M.C., A.U.S.,
Fort Monmouth, New Jersey
Discussion: Rose M. Lenahan, M.D., Buffalo

Wednesday, May 5—2:00 P.M.
Hotel Statler, Room 310

1. "Anesthesia for Thoracic Surgery"
Benjamin E. Etsten, M.D., Albany
Discussion: Lorenzo J. Pico, M.D., Brooklyn
2. (Title to be announced later)
Major Stevens J. Martin, M.C., A.U.S.,
New York
Discussion: Henry K. Beecher, M.D., Boston,
Massachusetts (By invitation)

ROUND-TABLE DISCUSSION
ANESTHESIOLOGY AS APPLIED TO WAR
CASUALTIES

Paul M. Wood, M.D., New York, Chairman
Virginia Apgar, M.D., New York
John C. Dessloch, M.D., Rochester
Clarence J. Durshordwe, M.D., Buffalo
E. A. Rovenstine, M.D., New York

SECTION ON
DERMATOLOGY AND SYPHILOLOGY

Chairman... Rudolph Ruedemann, Jr., M.D., Albany
Secretary... Maurice J. Costello, M.D., New York

Wednesday, May 5—10:00 A.M.
Hotel Statler, Room 308

1. "Crude Liver Extract as a Supportive Measure in Arseno—or Heavy Metal Therapy"
Girsch D. Astrachan, M.D., New York
Discussion: Paul Gross, M.D., New York
2. "Tuberculous Lesions of the Skin"
Anthony C. Cipollaro, M.D., New York
3. "Cutaneous Moniliasis"
Paul E. Bechet, M.D., New York
Discussion: Royal M. Montgomery, M.D.,
New York
4. "Occupational Aenes"
Louis Schwartz, M.D., Bethesda, Maryland
(By invitation)
Discussion: Louis Tulipan, M.D., New York

Thursday, May 6—10:00 A.M.
Hotel Statler, Room 306

1. "Eczema Vaccinatum"
Frank C. Combes, M.D., New York
Howard T. Behrman, M.D., New York
Discussion: Maurice J. Costello, M.D., New York
2. "Cutaneous Eruptions Produced by Sulfonamides: A Report of Two Cases of Bullous Eruption Following the Administration of Sulfonamide Drugs, One of Which Resembled Pemphigus Vulgaris"
David Bloom, M.D., New York
3. "Fever as an Adjuvant to Specific Therapy in Syphilis"
Evan W. Thomas, M.D., New York
Discussion: Harry C. Saunders, M.D., New York
4. "The Significance of Absent Pharyngeal and Corneal Reflexes in Cutaneous Diseases"
Thomas N. Graham, M.D., New York
George M. Lewis, M.D., New York
Discussion: Howard Fox, M.D., New York
5. "The Etiology of Psoriasis"
Arthur E. Goldfarb, M.D., New York

SECTION ON GASTROENTEROLOGY AND PROCTOLOGY

Chairman.....H. Walden Retan, M.D., Syracuse (In Service)
Vice-Chairman.....F. Leslie Sullivan, M.D., Scotia
Secretary.....Stockton Kimball, M.D., Buffalo

Tuesday, May 4—10:00 A.M.
Hotel Statler, Room 306

1. "Fat and Vitamin A Absorption in Sprue"
David Adlersberg, M.D., New York
Discussion: Henry A. Rafsky, M.D., New York
2. "The Treatment of Peptic Ulcer"
Edward F. Driscoll, M.D., Buffalo
Abraham H. Aaron, M.D., Buffalo
Discussion: John D. Stewart, M.D., Buffalo
3. "The Treatment of Gallbladder Disease"
Albert F. R. Andresen, M.D., Brooklyn
Discussion: I. Harris Levy, M.D., Syracuse
4. "The Diagnosis and Treatment of Lymphogranuloma Venereum of Colon, Rectum, and Anus"
Charles B. Jones, M.D., Brooklyn
Discussion: Descum D. McKenney, M.D., Buffalo

Wednesday, May 5—2:00 P.M.
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SYMPOSIUM CARCINOMA OF THE COLON AND RECTUM

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SECTION ON INDUSTRIAL MEDICINE AND SURGERY

Chairman....Leonard Greenburg, M.D., New York
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SECTION ON MEDICINE

Chairman...J. Stanley Kenney, M.D., New York
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Secretary....Julian M. Freston, M.D., New York

Wednesday, May 5—10:00 A.M.
Hotel Statler, Assembly Room, 17th Floor
JOINT MEETING WITH THE SECTION ON
SURGERY
(See Section on Surgery)

Thursday, May 6—10:00 A.M.
Hotel Statler, Room 310

1. "Treatment of Pneumonia with Sodium Sulfapyridine and Sodium Sulfathiazole Administered Orally"
Elmer H. Loughlin, M.D., Brooklyn
Richard H. Bennett, M.D., Brooklyn
Samuel H. Spitz, M.D., Brooklyn
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SECTION ON NEUROLOGY AND PSYCHIATRY

Chairman...Noble R. Chambers, M.D., Syracuse
Secretary....Angus M. Frantz, M.D., New York

Wednesday, May 5—10:00 A.M.
Hotel Statler, Room 308

1. "Bilateral Blindness Due to Lesions in Both Occipital Lobes"

Joseph C. Yaskin, M.D., Philadelphia, Pennsylvania (By invitation)

Henry Alsop Riley, M.D., New York

Helene E. Riggs, M.D., Philadelphia, Pennsylvania (By invitation)

A. S. Tornay, M.D., Philadelphia, Pennsylvania (By invitation)

Open Discussion

2. "Experiences with 500 Cases of Personally Studied Peripheral Facial Paralysis"

Lt. Comm. Harold R. Merwarth, M.C., U.S.N.R., Brooklyn

3. "Ménière's Syndrome, Its Mechanism and Management"

Miles Atkinson, M.D., New York

Open Discussion

4. "Twenty Years with Treatment of Trigeminal Neuralgias"

Henry Ward Williams, M.D., Rochester

Discussion: Wallace B. Hamby, M.D., Buffalo

Thursday, May 6—10:00 A.M.

Hotel Statler, Room 308

SYMPOSIUM

ELECTROSHOCK THERAPY

1. and 2. "Electroshock Therapy in Manic Depressive Psychoses"

Margaret T. Ross, M.D., Canandaigua

"A Study of over 2,000 Cases of Electrofit-Treated Patients"

David J. Impastato, M.D., New York

Renato J. Almansi, M.D., New York

Discussion opened by Eugene N. Boudreau, M.D., Syracuse

3. "Emotional Factors in Alcoholism"

Edward B. Allen, M.D., White Plains

Discussion: Albert B. Siewers, M.D., Syracuse

4. "Postconcussion Syndrome—Evaluation of the Organic Factors and Prognosis"

Peter G. Denker, M.D., New York

Discussion: G. Kirby Collier, M.D., Rochester

SECTION ON

OBSTETRICS AND GYNECOLOGY

Chairman.....Louis A. Siegel, M.D., Buffalo

Secretary.....Edward A. Bullard, M.D., New York

Tuesday, May 4—10:00 A.M.

Hotel Statler, Iroquois Room, Mezzanine Floor

1. "The Significance of Increased Menstrual Bleeding in Women over Forty"

Clyde L. Randall, M.D., Buffalo

Discussion: Stuart B. Blakely, M.D., Binghamton

2. "Sixteen Years' Experience with Placenta Praevia, Emphasizing Conservative Therapy"

Ward L. Ekas, M.D., Rochester

Discussion: Francis C. Goldsborough, M.D., Buffalo

3. "The Effect of the Antepartum Administration of Quinine on Labor"

Andrew A. Marchetti, M.D., New York

Alberta Kuder, M.A., New York (By invitation)

Lieutenant Leston E. Fitch, M.C., U.S.N.R., New York (By invitation)

Discussion: George W. Kosmak, M.D., New York

Wednesday, May 5—2:00 P.M.

Hotel Statler, Assembly Room, 17th Floor

1. "The Management of Carcinoma of the Body of the Uterus"

James A. Corscaden, M.D., New York

Discussion: William H. Wehr, M.D., Buffalo

2. "Cesarian Sections"

James P. Marr, M.D., New York

Discussion: Claude E. Heaton, M.D., New York

3. "Version and Breech Delivery"

Milton G. Potter, M.D., Buffalo

Discussion: James K. Quigley, M.D., Rochester; and Francis R. Irving, M.D., Syracuse

4. "Chronic Endocervicitis—A Critical Survey of Its Treatment"

Mortimer N. Hyams, M.D., New York

Discussion: Harvey B. Matthews, M.D., Brooklyn

SECTION ON

OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman.....H. W. Cowper, M.D., Buffalo

Secretary....James E. McAskill, M.D., Watertown

Wednesday, May 5—9:00 A.M.

Hotel Statler, Room 302

1. "Bilateral Uveitis with Poliosis, Vitiligo, etc.—A Theory as to Cause"

Elliott B. Hague, M.D., Buffalo

Discussion: Thurber Le Win, M.D., Buffalo

2. "Epidemic Keratoconjunctivitis"

Arthur J. Bedell, M.D., Albany

Discussion: Major Murray Saunders, M.C., New York (By invitation)

3. "Gas Injuries"

Francis Heed Adler, M.D., Philadelphia, Pennsylvania (By invitation)

Discussion: Alson E. Braley, M.D., New York

4. "Early Recognition and Management of Glaucoma"

Harry S. Gradle, M.D., Chicago, Illinois (By invitation)

Discussion: Algernon B. Reese, M.D., New York

5. "Corneal Diseases with Lowered Vitality"

Ralph I. Lloyd, M.D., Brooklyn

Discussion: Arno E. Town, M.D., New York

Thursday, May 6—10:00 A.M.

Hotel Statler, Room 302

1. "General Discussion of Tumors of the Nose and Nasopharynx"

Andrew A. Eggston, M.D., New York

Discussion: Daniel S. Cuning, M.D., New York

2. "Dermatologic Diseases Frequently Encountered by Otolaryngologists"

A. Benson Cannon, M.D., New York

Discussion: Walter L. Mattick, M.D., Buffalo

3. "TREATMENT OF CANCER OF THE LARYNX BY SURGERY AND IRRADIATION"

"Criteria for Selection of Treatment and Analysis of End Results"

Chevalier L. Jackson, M.D., Philadelphia, Pennsylvania (By invitation)

1. "Otolaryngologic Problems of Aviation"
Captain Page Northington, M.C., U.S.N.R.,
New York
Discussion: Louis Hopewell Bauer, M.D.,
Hempstead

SECTION ON ORTHOPAEDIC SURGERY

Chairman.....R. Plato Schwartz, M.D., Rochester
Secretary...Roscoe D. Severance, M.D., Syracuse

Wednesday, May 5—10:00 A.M.

Hotel Statler, Iroquois Room, Mezzanine Floor

JOINT MEETING WITH THE SECTION ON RADIOLOGY (See Section on Radiology)

Thursday, May 6—10:00 A.M.

Hotel Statler, Assembly Room, 17th Floor

1. "Use of Sulfonamides in Treatment of Acute Osteomyelitis in Children"
David E. Robertson, M.D., Toronto, Ontario
(By invitation)
Discussion opened by William Ward Plummer,
M.D., Buffalo
2. "New Developments in Infantile Paralysis"
Don W. Gudakunst, M.D., New York (By
invitation)
3. "The Degree, the Extent and Mechanism of
Muscle Spasm in Infantile Paralysis"
Harry D. Bouman, M.D., Rochester (By in-
vitation)
Discussion of both papers opened by R. Plato
Schwartz, M.D., Rochester

SECTION ON PATHOLOGY AND CLINICAL PATHOLOGY

Chairman....Ralph G. Stillman, M.D., New York
Vice-Chairman...Ward H. Cook, M.D., Yonkers
Secretary.....M. J. Fein, M.D., New York

Tuesday, May 4—10:00 A.M.

Hotel Statler, Room 304

(Program in process of arrangement)

Wednesday, May 5—2:00 P.M.

Hotel Statler, Room 304

(Program in process of arrangement)

FRESH TISSUE DEMONSTRATION

A demonstration on fresh tissue will occur at
suitable times on the Seventeenth Floor.

SECTION ON PEDIATRICS

Chairman.....William J. Orr, M.D., Buffalo
Vice-Chairman.....
.....A. Clement Silverman, M.D., Syracuse
Secretary.....Carl H. Laws, M.D., Brooklyn

Wednesday, May 5—10:00 A.M.

Hotel Statler, Room 304

1. "Early Diagnosis and Early Treatment of Con-
genital Dislocation of the Hips"
Frederick R. Thompson, M.D., New York
2. "Potentation of Sulfonamides; Experimental
and Clinical Studies"
Irwin Neter, M.D., Buffalo

3. "Recent Advances in the Diagnosis and Treat-
ment of Whooping Cough"
William L. Bradford, M.D., Rochester
4. (Title to be announced later)
Thomas D. Dublin, M.D., New York

Thursday, May 6—9:30 A.M.

Hotel Statler, Room 304

1. "The Use of Finely Divided Meat Particles as
the Protein Basis for Milk Substitutes in In-
fantile Eczema"
Jerome Glaser, M.D., Rochester

SYMPOSIUM RHEUMATIC FEVER

1. "A Clinical Syndrome in Children Resembling
Rheumatic Fever"
Albert D. Kaiser, M.D., Rochester
2. "Public Health Aspects of Rheumatic Fever"
George M. Wheatley, M.D., New York

SECTION ON PUBLIC HEALTH, HYGIENE, AND SANITATION

Chairman..Burdge P. MacLean, M.D., Huntington
Vice-Chairman.....
.....Arthur M. Johnson, M.D., Rochester
Secretary.....Frank E. Coughlin, M.D., Albany

Tuesday, May 4—10:00 A.M.

Hotel Statler, Room 302

1. "Administrative Difficulties Faced by a City
Health Department in Wartime"
Ernest L. Stebbins, M.D., New York
Discussion: Vivian A. Van Volkenburgh, M.D.,
Albany
2. "Nutrition of the Industrial Worker in the
United States and Abroad"
Frank G. Boudreau, M.D., New York (By
invitation)
3. "Scientific Basis for Our Present Dietary Stand-
ards"
Lydia J. Roberts, Ph.D., Chicago, Illinois (By
invitation)
Discussion of both papers: Edward S. Rogers,
M.D., Albany
4. "An Outbreak of Gonorrhea in a Boys' School"
Robert S. Westphal, M.D., Albany
Discussion: James H. Lade, M.D., Albany (By
invitation)

Wednesday, May 5—2:00 P.M.

Hotel Statler, Room 302

1. "Virus Diseases of the Central Nervous System"
David K. Miller, M.D., Buffalo
Discussion: Paul H. Garvey, M.D., Rochester
2. "Tropical Diseases—A Postwar Health Prob-
lem"
Lt. Col. Thomas T. Mackie, M.C., U.S.A.,
Washington, D.C.
Discussion: James E. Perkins, M.D., Albany

3. "Military Malaria Control"
Lt. Col. Paul F. Russell, M.C., A.U.S.,
Washington, D. C. (By invitation)
Discussion: William T. Clark, M.D., Buffalo
4. "A Hotel Outbreak of Gastroenteritis Due to
Salmonella Derby"
Frank E. Coughlin, M.D., Albany
Discussion: Miss Marion B. Coleman, Albany
(By invitation)

SECTION ON RADIOLOGY

Chairman.....
... Foster C. Rulison, M.D., Syracuse (In Service)
Vice-Chairman.....
... E. Forrest Merrill, M.D., New York (In Service)
Secretary.... Leslie R. Lingeman, M.D., Rochester

Wednesday, May 5—10:00 A.M.

Hotel Statler, Iroquois Room, Mezzanine Floor

JOINT MEETING WITH THE SECTION ON ORTHOPAEDIC SURGERY

This joint session has been arranged as a "Quiz Program" to "Stump the experts" using case histories and x-ray films.

We have been fortunate in obtaining the services of two outstanding men in this field: Dr. Howard P. Doub, past-president of the Radiological Society of North America, editor of *Radiology*, and longtime director of the Department of Radiology, Henry Ford Hospital; and Dr. Raymond W. Lewis, director of the Department of Radiology of the Hospital for Special Surgery.

Help make this meeting a success by sending in your interesting and difficult cases.

Identify your material carefully so that it may be returned.

Thursday, May 6—10:00 A.M.

Hotel Statler, Room 301

1. "Diagnosis, Treatment, and End Results in Malignant Tumors of the Nasal Sinuses"
G. Allen Robinson, M.D., New York
Discussion: Andrew H. Dowdy, M.D., Rochester; and Walter L. Mattick, M.D., Buffalo
2. "X-Ray Studies of the Cervical Spine"
Lee A. Hadley, M.D., Syracuse
Discussion: Henry Ward Williams, M.D., Rochester
3. "Treatment of Nonpyogenic Infections with Radiation Therapy"
Ira I. Kaplan, M.D., New York
Discussion: Reinhardt C. Wende, M.D., Buffalo

INTERMISSION

4. "Bone Infarcts and Aseptic Necrosis in Caisson and Noncaisson Workers"
Henry K. Taylor, M.D., New York
Discussion: William A. Walker, M.D., New York
5. "Tissue Dose Estimation in Combined Roentgen and Radium Therapy for Carcinoma of the Cervix"
William E. Howes, M.D., Brooklyn
Discussion: William Harris, M.D., New York

6. "X-Ray Diagnosis of Bronchogenic Carcinoma"
G. Newton Scatchard, M.D., Buffalo
Discussion: Herman E. Bozer, M.D., Buffalo; and Leon J. Leahy, M.D., Buffalo

SECTION ON SURGERY

Chairman.....
..... William Crawford White, M.D., New York
Secretary..... W. J. Merle Scott, M.D., Rochester

Wednesday, May 5—10:00 A.M.

Hotel Statler, Assembly Room, 17th Floor

JOINT MEETING WITH THE SECTION ON MEDICINE

1. "Clinical Types of Coronary Insufficiency and Their Recognition"
Robert L. Levy, M.D., New York
2. "The Principles Concerning the Surgical Approach to the Treatment of Angina Pectoris"
Lt. Col. Claude S. Beck, M.D., Cleveland, Ohio (By invitation)
3. "Advances in Diagnosis and Treatment of Pancreatic Disease"
Joseph H. Pratt, M.D., Boston, Massachusetts (By invitation)
4. "The Surgical Treatment of Patent Ductus Arteriosus"
Robert E. Gross, M.D., Boston, Massachusetts (By invitation)
Discussion on Joint Session to be opened by Alfred H. Noehren, M.D., Buffalo

Thursday, May 6—10:00 A.M.

Hotel Statler, Room 304

1. "Surgical Aspects of Gastric Ulcer"
John D. Stewart, M.D., Buffalo
2. "Methods of Treatment of Arterial Embolism"
Frederick S. Wetherell, M.D., Syracuse
3. "Acute Cholecystitis"
Beverly C. Smith, M.D., New York
4. "Management of Injuries to the Common Bile Duct"
Herman E. Pearse, M.D., Rochester

SECTION ON UROLOGY

Chairman..... J. Sydney Ritter, M.D., New York
Vice-Chairman.....
..... A. Laurence Parlow, M.D., Rochester
Secretary..... George E. Slotkin, M.D., Buffalo

Tuesday, May 4—10:00 A.M.

Hotel Statler, Room 303

SYMPOSIUM

VENEREAL DISEASES IN REGARD TO THE ARMED FORCES

1. "Syphilis Control at the Beginning of World War II"
R. A. Vonderlehr, M.D., Assistant Surgeon General, Division of Venereal Diseases, U.S. Public Health Service, Washington, D.C.
(By invitation)

2. "Venereal Diseases—A Navy Problem"
Lt. Comm. Leo A. Shifrin, M.C., U.S.N.R.,
Camp Allen, Virginia
3. "Venereal Disease Control as Applied to the Army"
Major William Bisher, M.C., Camp Lee,
Virginia
Discussion of Symposium: Captain Anthony
J. Cerrato, M.C., Camp Blanding, Florida;
and Stafford L. Warren, M.D., Rochester

Wednesday, May 5—2:00 P.M.
Hotel Statler, Room 303

1. "Complete Avulsion of the Skin of the Penis and Scrotum"
Leon E. Sutton, M.D., Syracuse

2. "Congenital and Acquired Obstructions at the Vesical Neck in Children"
J. Sydney Ritter, M.D., New York
Samuel E. Kramer, M.D., New York
3. "The Incidence of Gross Renal Lesions in Cases of Hypertension"
Paul W. Aschner, M.D., Brooklyn
Bernard S. Epstein, M.D., Brooklyn
Harry Mandelbaum, M.D., Brooklyn
4. "The Cure of Certain Cases of Peyronie's Disease by Operative Intervention"
Oswald S. Lowsley, M.D., New York
Discussion: Meredith F. Campbell, M.D.,
New York; A. Laurence Parlow, M.D., Rochester;
Roy B. Henline, M.D., New York; and
George E. Slotkin, M.D., Buffalo

SESSIONS

SESSION ON HISTORY OF MEDICINE

- Chairman.....
.....George Rosen, M.D., Brooklyn (In Service)
Vice-Chairman.....
.....Edward F. Hartung, M.D., New York
Secretary....Judson B. Gilbert, M.D., Schenectady

Wednesday, May 5—4:00 P.M.
Hotel Statler, Rooms 418 and 420

1. "The Birth of Medical Education in Upstate New York"
T. Wood Clarke, M.D., Utica
2. "Eponyms in the History of Cancer"
Judson B. Gilbert, M.D., Schenectady

SESSION ON PHYSICAL THERAPY

- Chairman...Joseph A. E. Syracuse, M.D., Buffalo
Secretary...Kristian G. Hansson, M.D., New York

Tuesday, May 4—10:00 A.M.
Hotel Statler, Room 301

- Address: "The Role of Physical Medicine in Treatment of War Casualties"
Joseph A. E. Syracuse, M.D., Buffalo
1. "Problems in Early Physical Treatment of Poliomyelitis"

- Jessie Wright, M.D., Pittsburgh, Pennsylvania (By invitation)
Discussion: Kristian G. Hansson, M.D., New York; and Francis J. Gustina, M.D., Buffalo
2. "Physical Therapy in Peripheral Nerve Injuries"
Richard Kovacs, M.D., New York
Discussion: Wallace B. Hamby, M.D., Buffalo; and Albert A. Gartner, M.D., Buffalo
 3. "Fever and Sulfadiazine Therapy in Refractory Gonorrhea"
Lieutenant Sidney Licht, M.C., A.U.S., Fort Devens, Massachusetts
Discussion: Stafford Warren, M.D., Rochester; Madge C. L. McGuinness, M.D., New York; and George E. Slotkin, M.D., Buffalo

Luncheon

(Time and place to be announced at end of session)

Demonstrations and Inspections—2:00 to 5:00 P.M.

Physical Therapy Department, Millard Fillmore Hospital, 875 Lafayette Avenue
Tamara von Friesen, M.D., Director
Physical Therapy Department, Crippled Children's Guild, 936 Delaware Avenue
Orpah Cable, R.N., Director
Physical Therapy Department, E. J. Meyer Memorial Hospital, 462 Grider Street
Sarkis J. Anthony, M.D., Acting Director

(Arrangement for transportation to above institutions will be announced)

3. "Military Malaria Control"
Lt. Col. Paul F. Russell, M.C., A.U.S.,
Washington, D. C. (By invitation)
Discussion: William T. Clark, M.D., Buffalo
4. "A Hotel Outbreak of Gastroenteritis Due to Salmonella Derby"
Frank E. Coughlin, M.D., Albany
Discussion: Miss Marion B. Coleman, Albany
(By invitation)

SECTION ON RADIOLOGY

- Chairman..... Foster C. Rulison, M.D., Syracuse (In Service)
Vice-Chairman..... E. Forrest Merrill, M.D., New York (In Service)
Secretary..... Leslie R. Lingeman, M.D., Rochester

Wednesday, May 5—10:00 A.M.

Hotel Statler, Iroquois Room, Mezzanine Floor

JOINT MEETING WITH THE SECTION ON ORTHOPAEDIC SURGERY

This joint session has been arranged as a "Quiz Program" to "Stump the experts" using case histories and x-ray films.

We have been fortunate in obtaining the services of two outstanding men in this field: Dr. Howard P. Doub, past-president of the Radiological Society of North America, editor of *Radiology*, and long-time director of the Department of Radiology, Henry Ford Hospital; and Dr. Raymond W. Lewis, director of the Department of Radiology of the Hospital for Special Surgery.

Help make this meeting a success by sending in your interesting and difficult cases.

Identify your material carefully so that it may be returned.

Thursday, May 6—10:00 A.M.

Hotel Statler, Room 301

1. "Diagnosis, Treatment, and End Results in Malignant Tumors of the Nasal Sinuses"
G. Allen Robinson, M.D., New York
Discussion: Andrew H. Dowdy, M.D., Rochester; and Walter L. Mattick, M.D., Buffalo
2. "X-Ray Studies of the Cervical Spine"
Lee A. Hadley, M.D., Syracuse
Discussion: Henry Ward Williams, M.D., Rochester
3. "Treatment of Nonpyogenic Infections with Radiation Therapy"
Ira I. Kaplan, M.D., New York
Discussion: Reinhardt C. Wende, M.D., Buffalo

INTERMISSION

4. "Bone Infarcts and Aseptic Necrosis in Caisson and Noncaisson Workers"
Henry K. Taylor, M.D., New York
Discussion: William A. Walker, M.D., New York
5. "Tissue Dose Estimation in Combined Roentgen and Radium Therapy for Carcinoma of the Cervix"
William E. Howes, M.D., Brooklyn
Discussion: William Harris, M.D., New York

6. "X-Ray Diagnosis of Bronchogenic Carcinoma"
G. Newton Scatchard, M.D., Buffalo
Discussion: Herman E. Bozer, M.D., Buffalo; and Leon J. Leahy, M.D., Buffalo

SECTION ON SURGERY

- Chairman..... William Crawford White, M.D., New York
Secretary..... W. J. Merle Scott, M.D., Rochester

Wednesday, May 5—10:00 A.M.

Hotel Statler, Assembly Room, 17th Floor

JOINT MEETING WITH THE SECTION ON MEDICINE

1. "Clinical Types of Coronary Insufficiency and Their Recognition"
Robert L. Levy, M.D., New York
2. "The Principles Concerning the Surgical Approach to the Treatment of Angina Pectoris"
Lt. Col. Claude S. Beck, M.D., Cleveland, Ohio (By invitation)
3. "Advances in Diagnosis and Treatment of Pancreatic Disease"
Joseph H. Pratt, M.D., Boston, Massachusetts (By invitation)
4. "The Surgical Treatment of Patent Ductus Arteriosus"
Robert E. Gross, M.D., Boston, Massachusetts (By invitation)
Discussion on Joint Session to be opened by Alfred H. Noehren, M.D., Buffalo

Thursday, May 6—10:00 A.M.

Hotel Statler, Room 304

1. "Surgical Aspects of Gastric Ulcer"
John D. Stewart, M.D., Buffalo
2. "Methods of Treatment of Arterial Embolism"
Frederick S. Wetherell, M.D., Syracuse
3. "Acute Cholecystitis"
Beverly C. Smith, M.D., New York
4. "Management of Injuries to the Common Bile Duct"
Herman E. Pearse, M.D., Rochester

SECTION ON UROLOGY

- Chairman..... J. Sydney Ritter, M.D., New York
Vice-Chairman..... A. Laurence Parlow, M.D., Rochester
Secretary..... George E. Slotkin, M.D., Buffalo

Tuesday, May 4—10:00 A.M.

Hotel Statler, Room 303

SYMPOSIUM

VENEREAL DISEASES IN REGARD TO THE ARMED FORCES

1. "Syphilis Control at the Beginning of World War II"
R. A. Vonderlehr, M.D., Assistant Surgeon General, Division of Venereal Diseases, U.S. Public Health Service, Washington, D.C. (By invitation)

is determined with a stop-watch or recording galvanometer and represents time elapsing from injection to deflection of needle.

Samuel J. Kopetzky, M.D.
Ralph Almour, M.D.
Murray B. Gordon, M.D.
Julius W. Bell, M.D.

CLINICS (DRY) ON

1. SIGMOID SINUS THROMBOSIS
2. OTITIS MEDIA IN PEDIATRICS
3. NONOPERATIVE TREATMENT OF PARANASAL SINUSITIS

Abraham L. Kornzweig, M.D.
Mount Sinai Hospital
New York

EMBRYOLOGIC DEVELOPMENT OF THE CORNEA, SCLERA, AND CORNEO-SCLERAL JUNCTION

Microphotographs of cross-sections of the eye at different stages of fetal life. The development of the cornea, sclera, and corneo-scleral junction from the the age of five weeks up to term is shown. Several new concepts of the importance of the corneo-scleral junction are advanced. A theory as to the possible early onset of progressive myopia is demonstrated. Developmental anomalies affecting these structures are shown. Microscopic slides and plaster models are used for demonstration.

Richard Kovacs, M.D.
New York Polyclinic Medical School and Hospital
Louis P. Biro, M.D.
Goldwater Memorial Hospital
New York

HISTORY OF PHYSICAL THERAPY

Photographs, drawings, and charts showing the development of electrotherapy, light therapy, hydrotherapy, and mechanotherapy from the early days to the present time.

Maxwell Maltz, M.D.
West Side Hospital and Dispensary
New York

WAR PLASTIC SURGERY

The exhibit shows the author's methods of repairing recent wounds of the face, deformities due to burns, and an original technic that can be used to reconstruct fingers lost through trauma. (Motion pictures)

Michael Levitan, M.D.
Clarence A. Greenleaf, M.D.
New York State Association of School Physicians
Rome

SCHOOL HEALTH

School Health Service and Education

Scientific and other posters on school health, school forms, tabulations, auditory and visual equipment used in the examination of school children.

New York State Commission for the Blind

Ruth B. McCoy
New York

NEW YORK STATE COMMISSION FOR THE BLIND

The prevention service of the New York State Commission for the Blind points out, through a series of posters, the relationship between a vision conservation program and national defense. (Motion picture)

National, State, and Local Tuberculosis Associations

A. CHEST X-RAY METHODS

Exhibit shows comparison of various methods of making chest roentgenograms in private practice and for mass surveys with brief comments on advantages and disadvantages of each method.

B. TECHNICAL ERRORS IN CHEST ROENTGENOGRAPHY

Three chest x-ray plates are exhibited which the visitor studies for errors. After he has formed his opinion, he places over the film a hinged, plexiglass cover which shows the actual errors in technic.

State Department of Education

Albany

NEW YORK STATE MEDICAL LIBRARY

Posters, books, and journals. One of the Library Staff will be present to answer all questions concerning the facilities and services of the Library.

(A)

New York State Department of Health

Albany

CANCER CONTROL

The exhibit depicts the medical activities for cancer control by means of a photographic montage. Placards outline the state program.

(B)

Medical Society of the State of New York Subcommittee on Tuberculosis and Diseases of the Chest

and

New York State Department of Health

NEOPLASMS OF THE CHEST BENIGN AND MALIGNANT

This exhibit portrays by means of transparencies various neoplasms which occur in the lungs, including two cases of primary carcinoma of the lung treated by surgery which are now clinically well, lesions due to metastasis from carcinoma and sarcoma, Hodgkin's disease, lymphatic and myelogenous leukemia, neurofibroma and echinococcus cyst. The material for this exhibit has been furnished by the Tumor clinics of the Buffalo General Hospital and the Edward J. Meyer Memorial Hospital of Buffalo.

(A)

New York State Department of Health in cooperation with

Murray Saunders, M.D.
College of Physicians and Surgeons
Columbia University

EPIDEMIC KERATOCONJUNCTIVITIS

The recent appearance of epidemic keratoconjunctivitis in the eastern states has created considerable interest on the part of physicians, health officials, and industrial and military authorities because of its important clinical features. This display includes colored slides and charts. In addition, material concerning the isolation of the causative virus and pertinent observations on the epidemiology of the disease are presented.

(B)

New York State Department of Health Albany

NEWER CONCEPTS OF THE SHOCK SYNDROME

A diagrammatic representation of current knowledge regarding the physiologic changes that occur in

Scientific Exhibits

Hotel Statler, Buffalo, May 3-6, 1943

J. G. Fred Hiss, M.D., *Chairman*, Syracuse

John DePaul Currence, M.D., New York

Alfred H. Noehren, M.D., Buffalo

David Adlersberg, M.D.

Mt. Sinai Hospital
and

Beth Israel Hospital
New York

FAT AND VITAMIN A ABSORPTION IN SPRUE

Case histories, roentgenograms, and graphs illustrate the relationship between the severity of the case, the clinical course, the results of therapy, and the behavior of the Fat and Vitamin A absorption tests. These tests permit in some cases the differentiation between sprue and jejuno-ileitis.

Morton I. Berson, M.D.

Downtown Hospital
New York

TRAUMATIC INJURY AND PLASTIC REPAIR

The exhibit presents, by means of colored lantern slides, transparencies, diagrams, models, and moulages, the surgical procedures of various types of skin and cartilage grafts employed in the reconstruction of extensive cicatricial scars due to burns, construction of auricle for traumatic loss, correction of bony depressions of the face and skull, and other disfigurements with end results. (Motion pictures)

Charles W. Bethune, M.D.

Buffalo Hospital Sisters of Charity
Buffalo

Wax models of pathologic conditions and specimens, x-ray films of same taken preoperatively or antemortem. Color photos of pathologic specimens.

Procurement and Assignment Service for

Physicians, Dentists, and Veterinarians
War Manpower Commission

Joseph R. Clemmons, M.D.
William McGill Burns, D.D.S.
New York

Problems of procurement and assignment of physicians will be discussed each day throughout the meeting.

E. Hoyt DeKleine, M.D.

Buffalo General and Millard Fillmore Hospitals
Buffalo

Claire L. Straith, M.D., D.D.S.
Harper and Children's Hospitals
Detroit

Wayne B. Slaughter, M.D., D.D.S.
Loyola University
Chicago

FACIAL SCARS

Pathology, Prevention, and Correction

Photographs and models with detailed captions showing functional and cosmetic abnormalities of scar tissue with methods of minimizing. Automatic sequence of colored photographs showing technic of scar excision.

Department of Health, City of Buffalo

Francis E. Fronczak, M.D.
Commissioner of Health

Moulages of syphilis and infectious diseases.
Chest x-rays of tuberculosis, malignancy, and other chest conditions. Animal parasites of this region.

S. A. Goldberg, M.D.

Newark, New Jersey

S. N. Blackberg, M.D.

Chicago, Illinois

P. Stanley

Newark, New Jersey

THE PATHOLOGY OF ARTHRITIS

The exhibit consists of moulages, drawings, and transparencies of gross and microscopic sections demonstrating the pathologic changes which occur in the synovial membrane, articular cartilage, and subcondral bone in rheumatoid, degenerative, and infective arthritis. Of particular interest are the very early formation of synovial pannus and early changes in the articular cartilage. The material used for this study is taken from cases of chronic arthritis in man, supplemented by cases of arthritic joints in animals.

Lee A. Hadley, M.D.

Syracuse University
Syracuse

CERVICAL SPINE STUDIES

X-ray studies showing various types of bony abnormalities involving the cervical spine.

David J. Impastato, M.D.

Renato Almansi, M.D.

New York University Medical School
New York

ELECTROFIT (ELECTROSHOCK) THERAPY IN MENTAL DISEASES

This exhibit consists of a series of charts outlining the history, manifestations, and technic. The results in the various types of psychoses and psychoneuroses will also be shown. Additional charts showing the effect of the electrofit on the blood pressure, the treatment of poor risks, etc.

Benjamin Jablons, M.D.

Jules Cohen, M.D.

M. Y. Swirsky, M.D.

Goldwater Memorial Hospital
and
New York City Hospital
New York

PHOTOELECTRIC DETERMINATION OF CIRCULATION TIME

Light source which transmits light through translucent tissues on a photoelectric cell connected with a sensitive galvanometer. Intravenous injection of nontoxic dye modifies light transmission causing a deflection of galvanometer needle. Circulation time

shown and demonstrated on live animals. Classification of gases will be emphasized and the various methods of combating each group will be demonstrated. During the meeting the entire 6-hour course in War Gases arranged jointly by the State Medical Society and the Office of Civilian Defense will be given. In order to provide adequate space, advance registration will be appreciated. Write directly to Dr. Stephen L. Walczak, 4 West Parade Avenue, Buffalo, New York.

Tropical Diseases

Various health and governmental organizations are arranging an exhibit of tropical diseases with special reference to cause, symptoms, diagnosis, and treatment. This exhibit is considered important because of the probability of infection of some of our overseas troops with this type of disease.

American National Red Cross
Albert A. Sharpe, M.D.
New York

RED CROSS FIRST AID DEMONSTRATIONS

There will be several daily demonstrations of the courses of First Aid Instruction being given to lay people. It is felt that it is important that doctors know of what is being taught and the methods used.

New York State Department of Health
Division of Syphilis Control
cooperating with the
United States Public Health Service
Albany

Three reels of colored film showing: (1) early syphilis, including many types of early lesions and description of methods of examination for their discovery, (2) latent syphilis and description of the management of such cases, and (3) late syphilis.

Kornel L. Terplan, M.D.
William F. Jacobs, M.D.
Samuel Sanes, M.D.
Charles F. Becker, M.D.
Margaret Warwick, M.D.
Siegfried Tannhauser, M.D.
Buffalo, New York

GROSS PATHOLOGY

There will be two demonstrations daily of fresh autopsy material obtained from all the Buffalo hospitals.

shock, the clinical conditions that may produce it, and modern methods of treatment with special reference to replacement therapy.

Joseph E. F. Riseman, M.D.
Beth Israel Hospital
Boston

ANGINA PECTORIS

Film in sound and color showing: Part 1—clinical picture; Part 2—physiology; Part 3—pathology; Part 4—treatment of angina pectoris as illustrated by objective measurements in patients with this condition.

H. J. Rubenstein, M.D.
Beth Israel Hospital
and
Polyclinic Hospital
New York

CHRONIC NASAL SINUSITIS

Exhibit demonstrates by means of models, charts, case records, and roentgenograms the various techniques employed in ascertaining the factors significant in a chronic sinus involvement.

Technics of treatment, such as allergic desensitization, autogenous vaccine therapy, ionization, Proetz suction displacement, and the Elliott apparatus are illustrated in some detail. The Elliott treatment, an important physical therapy device, has considerable value in its ability to provide local heat to the sinus area.

Results of six years of study of patients with chronic nasal sinusitis are exhibited. The exhibits emphasize the conclusion that successful results can be obtained by careful attention to the multiple factors involved in a chronic sinusitis with treatment making use of the many modalities and therapeutic techniques available today.

Udall J. Salmon, M.D.
Samuel H. Geist, M.D.
Charles S. Poole, M.D.
A. Austin Salmon
Mount Sinai Hospital
New York

A TWO-HOUR PREGNANCY TEST

A biologic test for pregnancy which employs immature rats and requires only two hours. The test has been used in over 200 cases during a period of more than a year, with an accuracy of over 96 per cent. It is a simple, inexpensive test and should be of interest now, particularly in view of the growing scarcity and increase in cost of rabbits. (Motion pictures)

Henry K. Taylor, M.D.
Goldwater Memorial Hospital
New York

BONE INFARCTS AND ASEPTIC NECROSIS

Exhibit consists of bone infarcts and areas of aseptic necrosis found in caisson and noncaisson workers. The lesions are identical in appearance and cannot be differentiated one from the other. The lesions may involve the articular and nonarticular portions of bone. They may be single or multiple, and often bilateral.

Abner I. Weisman, M.D.
Jewish Memorial Hospital
New York

A. HUMAN REPRODUCTION IN WARTIME: A COMPREHENSIVE STUDY OF STERILITY AND FERTILITY

The exhibit consists of a comparative study of the rise in birth rate during the two World Wars. The etiologic factors, reasons for differences, and advanced strides in sterility studies are explained. The role played by the medical profession and the veterinary workers in the field of propagation of the human species is unfolded. A proper evaluation of the importance of the male factors in a barren marriage is included.

B. THE XENOPUS FROG TEST IN THE EARLY DIAGNOSIS OF PREGNANCY (Motion Picture)

J. Eastman Sheehan, M.D.
New York Polyclinic Medical School and Hospital
New York

PLASTIC REPARATIVE SURGERY

Presentation of colored casts and photographs for the treatment of war wounds and burns, from the author's experiences in Spain and England. Presentation of the various apparatus and instruments used in the treatment for the several types of fractures of the upper and lower jaws. A full demonstration of prosthetic dentures will be presented showing the part they play in the replacement of the parts through loss or disfigurement.

George M. Wheatley, M.D.
Metropolitan Life Insurance Company
New York

IMPACT OF WAR ON VITAL STATISTICS

The exhibit consists of a series of placards showing the effects of war on: (1) age composition of population; (2) marriage rates; (3) birth rates; (4) tuberculosis death rates.

Medical Society of the State of New York
Subcommittee on
Tuberculosis and Diseases of the Chest
Dr. Chas. D. Post, Chairman

Charts showing the organization of the State Medical Society's Tuberculosis Control activities.

Buffalo Emergency Medical Service
Harold F. R. Brown, M.D.
Buffalo

Exhibit showing the obtaining, preparation, and storage of plasma. Charts and pictures showing the setup of the Buffalo Emergency Medical Service. This includes exhibitions of casualty-station equipment as well as team equipment.

This exhibit will be closely coordinated with the one on plasma by the Health Department of the State of New York.

Second Region Medical Division
Office of Civilian Defense
and
Buffalo Medical School

WAR GAS DEMONSTRATIONS

A complete exhibit and course in War Gas Instruction is jointly arranged. Actual gases will be

Ciba Pharmaceutical Products, Inc., Summit, New Jersey (Booth 4), cordially invite physicians to visit their booth where the well-known products of Ciba are on display. Three new additions to the fine line of Ciba pharmaceuticals merit your attention: Biotose, Trasentine-Phenobarbital, and Privine. A well-informed representative of the company will be in attendance to supply information on any Ciba preparation.

The Coca-Cola Company, Atlanta, Georgia (Booth 66). "Coca-Cola" will be available to the delegates of the convention with the compliments of The Coca-Cola Company.

The Cream of Wheat Corporation, Minneapolis, Minnesota (Booth 64).

The Denver Chemical Mfg. Co., New York (Booth 48). Galatest, the dry reagent for the instantaneous detection of urine sugar, will be exhibited. Now used routinely by many leading hospitals, medical departments of industries, and more and more private practitioners. Accurate, simple, speedy, economical. Accepted for advertising in the *Journal of the American Medical Association*.



Doak Company, Inc., Cleveland, Ohio (Booth 5).

The Doho Chemical Corporation, New York (Booth 18), Animated Pathological Ear Exhibit—the Auragan Exhibit consists of a model of the human auricle 4 feet high, together with a series of 24 three-dimensional ear drums, modeled under the supervision of outstanding otologists. Each of these drums depicts a different pathologic condition based upon actual case observation and prepared, in so far as possible, with strict scientific accuracy so as to be highly instructive and interesting to all physicians.

Duke Laboratories, Inc., Stamford, Connecticut (Booth 2), will demonstrate the original American-made, stretchable, adhesive-surfaced bandage, Elastoplast, Elastoplast Coverlets, and Mediplast—products used routinely in practically all of the defense industries. Also on display will be Nivea Creme, Nivea Skin Oil, and Basis Soap—the prescriber's cosmetics.

Effervescent Products, Inc., Elkhart, Indiana (Booth 74). Demonstration of urine-sugar analysis by the new Clinitest Tablet Method—reliable, simple, fast, single tests being made in less than one minute. A sensitive qualitative test giving dependable quantitative estimations up to 2 per cent. The standard Clinitest—Tablet itself evolves the required heat.

J. H. Emerson Company, Cambridge, Massachusetts (Booth 56)

C. B. Fleet Co., Inc., Lynchburg, Virginia (Booth 57).

General Electric X-Ray Corp., Chicago (Booth 65).



Gerber Products Company, Fremont, Michigan (Booth 54). The complete line of Gerber Baby Foods will be on display. There are 2 precooked dry cereals, one a wheat, the other an oatmeal cereal, 18 strained foods, and 10 chopped foods. Booklets available for distribution to mothers or patients on special diets, as well as professional literature, will be sent to registrants for examination.

Otis E. Glidden & Co., Inc., Evanston, Illinois (Booth 73). Obtain latest information on improved Zymenol. Brewers Yeast Content has been increased to 45 per cent by volume and Mineral Oil Content reduced. Zymenol is now more than ever a uniformly effective, twofold natural therapy in either the irritant, unstable, or stagnant bowel on teaspoon dosage.

Hanovia Chemical & Mfg. Company, Newark, New Jersey (Booth 17), will display a complete line of high-pressure, self-lighting ultraviolet quartz lamp for body and oral application; also ultraviolet Safe-T-Aire equipment for air sanitation. Courteous and competent representatives will be on hand to explain their application and various requirements.

Hoffmann-La Roche, Inc., Nutley, New Jersey (Booth 24). War shortages of atropine and belladonna have greatly increased physicians' interest in Syntropan. This antispasmodic will be one of the featured products in the Roche exhibit. The many uses for which Prostigmin has proved to be effective will also be described by representatives of the Roche Medical Division, who will be in attendance. Other pharmaceutical prescription specialties emanating from Roche Park, including Sodium Alurate, will also be displayed.

Holland-Rantos Company, Inc., New York (Booth 35), will exhibit at their booth contraceptive specialties. These will include Koromex diaphragms, jellies, H-R Emulsion cream, and the new package, the Koromex Set Complete. Please be sure to examine it. This is a complete ideally suited for either prescriber or patient purposes. Hospital specialties consisting of waterproof garments and bedding, utilizing rubber substitutes, will be featured under the trade names Rantomist Lawn, Rantoflan, and Rantoplast. Worthy of special attention will be the Rantex surgical masks made of special vegetable fiber paper.

Horlick's Malted Milk Corporation, Racine, Wisconsin (Booth 26), cordially invites you to visit their booth and enjoy a refreshing serving of chocolate malted milk. This palatable, delicious, and easily digested food-drink is indicated as a supplement to liquid and semiliquid diets. It is basic nutrition because it is a scientifically well-balanced combination of proteins and carbohydrates of full-cream milk and choice grains.

Jeffrey-Fell Company, Buffalo, New York (Booths 13 and 14). In Booth 13 will be displayed Castle Sterilizers of various styles and sizes; the latest in cabinet models, colors, and designs, perfection in modern sterilization. Ritter office equipment ultra-

Technical Exhibits

Hotel Statler, Seventeenth Floor

AT THIS "War Medicine" meeting, the technical exhibits will prove to be of great interest. New developments and products in many fields will be on display. Space allotted to these exhibits has been reduced this year to make room for the Fresh Tissue Exhibit, the Chemical Warfare Demonstration, and other features of unusual significance in wartime.

Descriptions of the Technical Exhibits appear below in alphabetical order. Necessarily brief, they give only a fraction of the information to be obtained by a personal visit. You pass through the exhibits on the way to meetings of the House of Delegates, General Sessions, Combined Surgery and Medicine, and other meetings scheduled for the Seventeenth Floor auditorium.

Admission to all exhibits and scientific sessions is limited to those wearing official badges, which can be obtained at the Registration Desk.

Bilhuber-Knoll Corp., Orange, New Jersey (Booth 72). The "Council Accepted" prescription chemicals of Bilhuber-Knoll find an important place in wartime medicine because of their proved effectiveness and dependability. Metrazol, the respiratory and circulatory restorative; Theocalcin, diuretic and myocardial stimulant; and Dilaudid, analgesic and cough sedative, are receiving increasing use by the Army, Navy, and other governmental agencies. You will find these useful for your everyday prescriptions.

The Borden Company, New York (Booth 40).

Brewer & Company, Inc., Worcester, Massachusetts (Booth 44). Brewer & Company developed for the treatment of coronary artery disease, in 1937, the first enteric-coated tablet of Theobromine Sodium Acetate (Thesodate) for prophylactic relief; and, in 1941, Thesodate Gelatin Capsules for supplementary relief of angina pectoris. In 1940 Brewer & Company presented *Lausmin Enteric-Coated Tablets* and Gelatin Capsules for the relief of bronchial asthma. Brewer & Company, first pharmaceutical house in New England to capsule their own vitamin capsules, produces Deratol, 50,000 U. S. P. Units of Vitamin D obtained from Irradiated Ergosterol. Brewer & Company also offer a basic line of ampules to the medical profession. In 1941, Codeine Phosphate Tablets, $\frac{1}{4}$ grain, enteric-coated, were developed for the relief of useless coughs. Information and literature may be obtained at the Brewer exhibit about their specialties and other vitamin products.

Burroughs Wellcome & Co. (U.S.A.), Inc., New York (Booth 25), presents a representative group of fine chemicals and pharmaceutical preparations, together with new and important therapeutic agents of special interest to the medical profession.

Cambridge Instrument Company, Inc., (Booth 67). The great increase in cardiac cases due to anxiety and overwork incidental to the times makes the Cambridge Instrument Company exhibit of cardiac diagnostic instruments particularly timely. In their booth they will feature, as part of a complete

exhibit of cardiac diagnostic instruments, the compact, lightweight, portable "Simpli-Trol" model Electrocardiograph-Stethograph that produces electrocardiogram and stethogram separately or simultaneously. Cambridge Electrocardiographs for large or small hospital, research laboratory, clinic, or private office will also be demonstrated at their exhibit.

Camel Cigarettes, New York (Booths 49 and 50), will exhibit large detailed photographs of equipment used in comparative tests of the five largest-selling brands of cigarettes. Representatives will be available to discuss research. Trans-Lux News will be supplied throughout the meeting.

S. H. Camp & Company, Jackson, Michigan (Booth 23), will use as the central theme of their exhibit a series of life size sculptured models depicting the Anatomy of Pregnancy. Besides the complete line of Camp prenatal and postnatal supports, others for orthopaedic, visceroprotosis and postoperative requirements will be shown. Experts from the Camp staff will be in attendance.

CAMP

Carnation Company, Oconomowoc, Wisconsin (Booths 31 and 32), will display an interesting model of the famous Carnation Milk Farm where cattle breeding and feeding experiments are carried on for the purpose of improving the dairy herds supplying the many Carnation evaporating plants. The story of the careful processing of Irradiated Carnation Milk is also told in an interesting manner.



Chatham Pharmaceuticals, Inc., Newark, New Jersey (Booth 53), will exhibit two products. Aluminum—chemically nonreactive colloidal alumina, supplied in easy-to-swallow gelatin capsules. It provides convenient, palatable, and effective medication for the gastric hyperacidity or ulcer patient. Koagamin—a rapidly effective and dependable hemostatic for parenteral use.

and Theelol; antisiphilitic agents, such as Mapharsen and Thio-Bismol; posterior lobe preparations, including Pituitrin, Pitocin, and Pitressin; and various adrenalin chloride preparations.



Pet Milk Sales Corporation, St. Louis, Missouri (Booths 69 and 70), will display an actual working model of a milk condensing plant in miniature. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk, its uses in infant feeding, and the time-saving Pet Milk services available to physicians. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk Booth.

Petrogalar Laboratories, Inc., Chicago (Booth 52), cordially invites physicians to visit their exhibit, where a new and enlightening story on Petrogalar, an aqueous suspension of mineral oil, will be related. Beautifully colored anatomic drawings and new literature may be had upon request from our professional representatives who will be in constant attendance.

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Sharp & Dohme, Inc., Philadelphia (Booth 41), will feature "Lyovac" Normal Human Plasma, other "Lyovac" biologicals and biologic specialties. There will also be on display pharmaceutical specialties including "Sulfasuxidine," succinylsulfathiazole, "Delvalin" Sodium, "Propadrine" Hydrochloride products, "Rabellon," "Depropanex," and "Prohexinol." A cordial welcome awaits all visitors.

Singer Sewing Machine Company, New York (Booths 9, 10, and 11).

Smith, Kline & French Laboratories, Philadelphia (Booth 75). Our representatives will gladly discuss the indications and potentialities of Benzedrine

stylish, sturdy construction, modern and simplified operation. Completes the doctor's successful technique. Purveyors to the medical profession over fifty years, displaying a varied and select assortment of high-grade instruments, both chrome and stainless steel. Furniture for office and clinic; sundries that are demanded to simplify and perfect the exacting work of the medical profession. Scientific apparatus for medical laboratories and many other items of interest to the profession will be displayed in Booth 14.

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POTENCIES UP!

NO increase in price!

- VITAMINS B₁-B₂(G)-C SUBSTANTIALLY *increased*
- NIACINAMIDE, important B Complex member, *added*

VI-SYNERAL is an excellent vitamin-mineral dietary supplement—in step with advancing nutrition research.

VI-SYNERAL is personally used and widely recommended by physicians because of its effectiveness and because it is now conceded that deficiencies in vitamins and minerals are usually multiple. We have pioneered multiple vitamin-mineral therapy since 1935.

VI-SYNERAL contains:

VITAMINS: A-B₁-B₂(G)-C-D-E-Niacinamide and B Complex factors.

MINERALS: Calcium, Phosphorus, Iron, Iodine, Manganese, Magnesium, Copper, Zinc.

... in a separate Funk-Dubin balance for each age group: (1) ADULTS, (2) INFANTS and CHILDREN—up to 6, (3) CHILDREN and ADOLESCENTS—6 to 16, (4) EXPECTANT and NURSING MOTHERS, and (5) SPECIAL GROUP (Middle-aged and Aged).

LITERATURE AND SAMPLE UPON REQUEST

U. S. VITAMIN CORPORATION
NEW YORK, N. Y.

VITAMINS ALONE ARE NOT ENOUGH!

BECAUSE VITAMINS ARE BETTER UTILIZED WITH MINERALS
VI-SYNERAL SUPPLIES BOTH!



Sulfate Tablets in depressive states; as an adjunct in the treatment of alcoholism; and in postencephalitic parkinsonism and narcolepsy. Benzedrine Inhaler, N.N.R., "Paredrine Hydrobromide Aqueous," "Paredrine"-Sulfathiazole Suspension, Eskay's Pantaplex, and Pragmasul will also be exhibited.

Spencer Incorporated, New Haven, Connecticut (Booth 55). An interesting moving postural exhibit featuring individually designed supports for abdomen, back, and breasts. Spencer Supports are prescribed as an aid to treatment for the following: hernia; visceroptosis with symptoms; postoperative; back conditions; maternity and postpartum; obesity; movable kidney; breast conditions; and certain forms of heart disease. Samples on display.

E. R. Squibb & Sons, New York (Booth 39), will feature a number of new chemotherapeutic specialties, as well as the latest additions to their line of vitamin, glandular, and biologic products. Well-informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

R. J. Strassenburgh Company, Rochester, New York (Booth 29).

Tampax Incorporated, New York (Booth 15).

U.S. Vitamin Corporation, New York (Booth 68).

Wallace & Tiernan Products, Inc., Belleville, New Jersey (Booth 19). Azochloramid (Chloroazodin U.S.P.) is a Council Accepted, effectively bactericidal organic chloramine of low toxicity for the treatment of wound infections. Motion pictures of several surgical technics and procedures, including plastic,

orthopaedic, peripheral vascular, and general surgery will be shown. Visit their booths and register. Their representatives will welcome your questions.

White Laboratories, Inc., Newark, New Jersey (Booth 3). Within recent years tremendous advances in vitamin research have added a wealth of clinical data to our knowledge of nutrition. The intense interest of the laity in the vitamins—often, unfortunately, confused and misled by unauthoritative lay advertising and uninformed "information"—can be properly controlled by the physician's interpretation of the actual usefulness of the vitamins to his patients. In its booth, White Laboratories, Inc., presents its complete line of ethically promoted, clinically reputable vitamin preparations. Qualified representatives are in attendance to discuss with you the use of White's products in vitamin prophylaxis and therapy. Descriptive literature is available for your review and a cordial welcome awaits you.

Winthrop Chemical Co., Inc., New York (Booth 45), extends a cordial invitation to visit their exhibit, where representatives will gladly discuss the latest therapeutic contributions made by this firm.

John Wyeth & Brother, Inc., Philadelphia (Booth 37).

Zimmer Manufacturing Company, Warsaw, Indiana (Booth 20), will exhibit the regular line of fracture equipment, and in addition the popular Luck Bone Saw and all of its attachments. Various other items that have been standardized by the U.S. Army and Navy will be on exhibition. The new Screw and Plate Container Outfit will also be on display, along with new instruments which have recently been designed by Dr. Walter P. Blount and Austin T. Moore.

TECHNIC OF LIPIODOL INSTILLATION

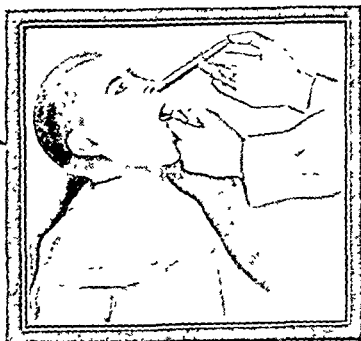
BRONCHOGRAPHY

Method of Forestier

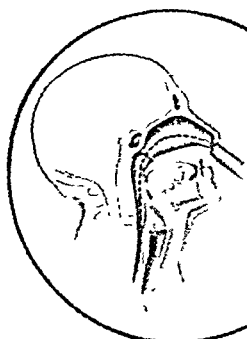
In the visualization of the bronchial tree, the pernasal method described by Forestier* in 1934 possesses several advantages. No special instruments are required; the patient is subjected to a minimum of discomfort; the technic is easily carried out. The tongue is pulled forward, thus closing the upper end of the esophagus. A topical anesthetic solution is instilled into one nostril with the head tilted back at an angle of 45°. The solution

finds its way through the open glottis into the trachea and bronchi. The warmed Lipiodol is instilled after five minutes, and the position of the patient is adjusted according to the portion of the bronchial tree which is to be visualized. With Lipiodol (iodized poppyseed oil containing 40 per cent iodine in chemical combination), brilliant roentgenograms of the bronchial tree ramifications are produced, affording a valuable aid in diagnosis.

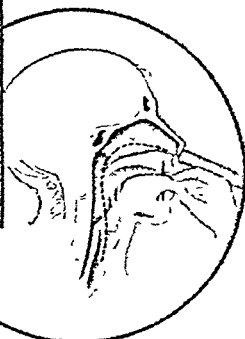
Wrong method; fluid entering esophagus when tongue is not pulled forward.



Correct method; the path followed by fluid when tongue is pulled forward.



The head in correct position, showing method of instilling fluid into nostril.



The complete description of the method of Forestier* in bronchography, as well as the many other valuable applications of Lipiodology, are graphically presented in a new brochure "The Applicability of

Lipiodol in Roentgenography and the Technic of its Use." Physicians are invited to send for a complimentary copy.

*Forestier, J., and Leroux, L.: Simplified Method of Bronchography, *Radiology* 24:743-744 (June, 1935)



E. FOUGERA & CO., INC., Distributors
75 Varick Street
New York, N. Y.

LIPIODOL (LAFAY)

Lipiodol is supplied in a variety of ampule sizes and in a 20cc. vaccine type vial for economy of use.

New York State Association of School Physicians*

Annual Meeting

Hotel Statler, Buffalo—Monday, May 3

2:00 P.M.—Chinese Room

Presidential Address

John E. Burke, M.D., Schenectady
Assistant Superintendent of Schools in Charge of
Health and Physical Education

"Tuberculosis—Present Day Control Measures"

Homer Folks, New York City
Secretary, State Charities Aid Association

Discussion: **Wm. E. Ayling, M.D.**, Syracuse,
Director of School Health

"Immunization Procedures"

Clarence A. Greenleaf, M.D., Olean
Director of School Health, Cattaraugus County

Discussion: **Michael Levitan, M.D.**, Rome
Director of School Health

"School Health Services"

Lillian De Armit, M.D., Albany
Acting Chief, Bureau of Health Service, State
Department of Health and Physical Education

* Open meetings.

6:00 P.M.

Dinner and Annual Business Meeting
(**Dr. John E. Burke**, Presiding)

8:00 P.M.—Chinese Room

"Today's Problems in Health Education"

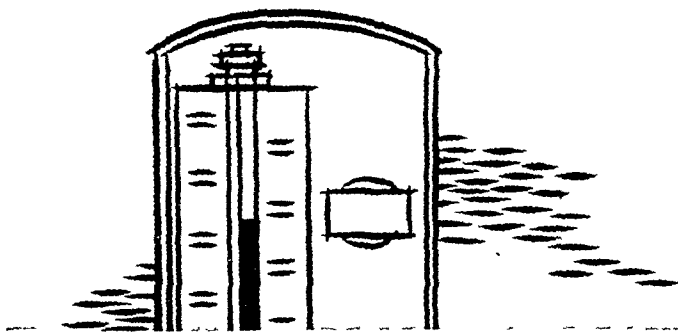
Clair E. Turner, A.M., Sc.D., Dr.P.H., Cambridge,
Massachusetts
Professor of Public Health, Massachusetts Insti-
tute of Technology; President, American School
Health Association

Discussion: **Charles H. Keene, M.D.**, Buffalo,
Director of Health and Physical
Education, University of Buffalo

"Activities of State Medical Society re School Health"

O. W. H. Mitchell, M.D., Syracuse
Professor of Public Health, Syracuse University;
Chairman, Council Committee on Public Health
and Education, Medical Society of the State of
New York

Discussion: **J. G. Fred Hiss, M.D.**, Syracuse
Chairman, Subcommittee on
Youth Organizations



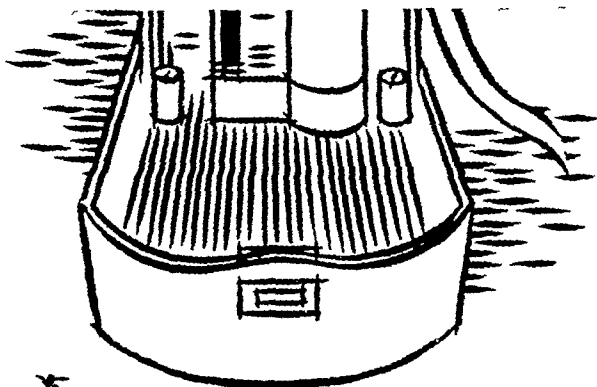
when rest has been *unsuccessful*

The vasodilator action of Erythrol Tetranitrate suggests it as an adjunct to rest and other measures when these have been unsuccessful in controlling arterial hypertension. Producing a vasodilatation which persists for several hours, following the administration of a single, therapeutically effective dose, Erythrol Tetranitrate causes a reduction in blood pressure sufficiently prolonged so that administration three times daily may maintain the re-

duction. It may be prescribed over a protracted period with sustained effect.

By dilating the peripheral arterioles, Erythrol Tetranitrate tends not only to decrease stress of excessive pressure on arterial walls, but also to relieve the burden on the heart. Although the causative mechanism remains unaltered, a more favorable circulatory condition is established.

Literature on Request



ERYTHROL TETRANITRATE MERCK

(Erythrosyl Tetranitrate)

For Prolonged
Vasodilatation
in Hypertension



ACCEPTED



MERCK & CO., Inc. *Manufacturing Chemists* **RAHWAY, N. J.**

Women's Medical Society of New York State

Annual Meeting, Buffalo—May 2-3, 1943

Headquarters, Hotel Statler

THE thirty-seventh Annual Meeting of the Women's Medical Society of New York State will be held in Buffalo, May 2-3

There will be a tea at the Hotel Statler, Sunday, May 2, from 4 00 to 6 00 P M

The regular annual meeting will be held on Monday morning, May 3.

The program for Monday is as follows: 9 30 A M.—Registration; 10 00 A M to 12 00 Noon—Business Session; 1 00 P M.—Luncheon

From 2 00 to 5 00 P M. the following scientific session has been planned: "The Physical Therapy Prescription," Jessie D. Wright, M D, Pittsburgh, Pennsylvania, with discussion by Florence E Warner, M D, of Binghamton, Madge C L Mc-

Guinness, M D, of New York City and Tamara von Friesen, M D, of Buffalo, "Shock Therapy in the Treatment of Mental Diseases," Jennie D Klein, M D, Buffalo; "Prevention and Early Diagnosis of Cancer," Zoe Allison Johnston, M D, Pittsburgh, Pennsylvania

Dinner will be held at the Hotel Statler on Monday at 7 00 P M. The speakers will be Marguerite P. McCarthy, M D, President of the Women's Medical Society of New York State, Greetings, President of the American Medical Women's Association—"Experiences in England," Florence L Warner, M D, Binghamton

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Woman's Auxiliary

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In someone's sky each day.
God bless all words of kindness
That lift the heart from gloom,
And in life's barren places
Plant flowers of love to bloom.

Let each of us be sure that our county news is in the spring issue.

The spring board meeting was held in Albany, February 15-16, at the DeWitt Clinton Hotel. At a

dinner meeting on February 15 at the hotel, Mrs. Noll, our president, greeted us in her charming manner, and after dinner, the members went to a session of the State Senate. On February 16, shortly after 9:30 A.M., the president called the board meeting to order. Reports were given from the State officers, chairman, and county presidents. The reports showed that all the auxiliaries are growing, that many new members have been taken in, and that all are busy in Red Cross work.

The Convention chairman, Mrs. William Rennie, gave her report for the Convention, to be held in Buffalo, May 3-6. Watch the JOURNAL for more news regarding the Convention.

County News

Herkimer. The February meeting was held at the Dyett Tea Room at Ilion. Mrs. Murray presided in the absence of the president. Mrs. Buckbee, of Dolgeville, was asked to represent Herkimer County at the board meeting. A nominating committee was appointed to present a slate at the April meeting. Red Cross sewing was done by all members after the meeting.

Kings. Women of the Kings County auxiliary have formed their own Red Cross Unit, meeting every Monday and Wednesday from 10 A.M. to 4 P.M. Layettes, hospital gowns, and surgical dressings are made.

Nassau. Mrs. Arthur Jacques welcomed Mrs. Abner Morris of Hewlett into the auxiliary. Owing to the ban on pleasure driving, meetings are canceled for the present. However, the executive board will meet once a month as usual, and all future activities will be announced by the board. At present, Nassau County is doing a great deal of work on Child Welfare Schools and on home defense.

Saratoga. At the meeting of the county auxiliary Mrs. James F. Roohan, president, praised the work of the public health nurses of Saratoga County. Splendid reports were given to the auxiliary members, showing the work that the health nurses are doing. Mrs. Roohan gave a short résumé of the bills to be brought up by the legislation committee and of the work being done by Mrs. Alfred Madden, state chairman of legislation. Mrs. Madden deserves a great deal of credit for her splendid work. The auxiliary does machine sewing once a week for the hospital.

All Auxiliary Members—You are all welcome to the Annual Convention to be held this May 3-6 at the Hotel Statler in Buffalo. Make your reservations early. I am sure we all want to renew our old acquaintances, make new ones, and keep the Auxiliary banner flying high at a time when we are needed so much. Let each one make a big effort to be there and make this convention a success.

See You At The Convention

The Woman's Auxiliary to the Medical Society of the State of New York will hold its Annual Convention in Buffalo, May 3-6, in conjunction with the Annual Meeting of the State Society.

The program will be published in the April 15 issue of the JOURNAL.

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AURAL, ORAL, AND LARYNGEAL TUBERCULOSIS

G. E. WILSON, M.D., Saranac Lake, New York

THIS paper will be of most interest to the otolaryngologist who has had meager experience with the tuberculous. It is not designed to bring forth anything new or striking. However, I trust that even those specialists who have spent much time in the field of tuberculosis may find something of interest in my experiences as compared with their own.

Tuberculosis of the middle ear is thought to be secondary to pulmonary tuberculosis, which disease has been positively diagnosed in every case of tuberculous otitis media that I have seen—and these patients have been adults with few exceptions. Two of the women, who both developed the condition after thoracoplasty operation, were so unfortunate as to have been deaf in the opposite ear following childhood exanthemata. This aural complication occurs in roughly 5 per cent of lung phthisis cases. Some of these patients have also had laryngeal tuberculosis as an accompaniment, which makes the prognosis more serious. This complication nearly always occurs in cases with active pulmonary lesions but appears occasionally in quiescent cases.

The onset is usually insidious and painless, or with only dull aching. An acute painful type has been described, but I have never encountered it. In long-standing cases with secondary infection, pain and soreness may become definite. Acute pyogenic infections of the middle ear may occur in tuberculous patients. Whether the pathway of infection in tuberculous otitis media is by blood, lymph, or through the eustachian tube by bacillus-laden sputum forced there during cough, is not definitely known. Proctor and Lindsay's¹ recent work favors the hematogenous route.

Early symptoms are discomfort of the ear, stuffiness, slight but progressive impairment of hearing, and later, in some cases, tinnitus. By the time the patient consults an otologist the tympanic membrane is thickened and appears dull red with the usual sharp landmarks rounded or less distinct. In most cases the drum ruptures spontaneously without pain in from one day to several weeks after definite establishment of symptoms and signs. The immediate discharge is thin and watery, or flocculent, but this soon becomes thick and purulent, though not profuse, and continues indefinitely, especially after secondary infection takes place. Multiple perforations have been described but mostly I have

seen a single one, usually in the anterior inferior quadrant, although it may occur in any part of the drum. It usually enlarges, with destruction of membrana tympani. Occasionally I have seen two perforations which have coalesced, but seldom more than two. Perforations are said to be ruptured tubercles. In the rare cases, which do not respond to treatment, bony necrosis may occur. Marginal perforations are suggestive of this, and if it happens, the ossicles may be destroyed and there may be an invasion of mastoid or labyrinth. Sequestra have been described, but they have not occurred in my cases. I have had occasion to operate upon but one tuberculous mastoid. Facial paralysis has occurred in two patients; one cleared without treatment, and the other continued until death from the far-advanced progressive lung lesion. Cholesteatoma develop in very few long-standing cases. Meningitis and brain abscess have been reported as extensions of this disease, but I have never met these serious metastases. Tubercle bacilli sometimes may be found in direct smear, and sometimes by culture or guinea pig inoculation of the aural pus. If granulations are accessible in the middle ear, a positive biopsy would be conclusive. Pathologically the diseased tissues show round cell infiltration, giant cells, tubercles, granulations, and necrosis or fibrosis as the disease progresses or retrogresses.

After spontaneous perforation the local treatment is practically the same as that for chronic purulent otitis media of pyogenic origin; namely, cleansing, followed by the use of antiseptic solutions, such as, boric acid, bichloride of mercury, and alcohol drops, or Calot's solution, or sulfonamides (locally and systemically). The discharge gradually ceases after a period of three to six months or longer, leaving a dry ear with much scar tissue and a marked loss of hearing, which is likely to be permanent with only slight improvement over the ensuing years. Occasionally this type of ear does not yield to treatment, but discharges for a long period with the ever-present danger of intracranial complications. I have not used vaccines or tuberculin or zinc ionization. Cox and Dwyer,² in reporting 25 cases of tuberculous otitis media, found tuberculin effective in treatment. They stated that 15 per cent of all discharging ears in childhood are tuberculous and that often the organisms are bovine. In children the disease is frequently extensive and destructive to the temporal bone. I seldom see such

¹Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

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SCHOOL'S OUT ...3 HOURS 'TIL SUPPERTIME

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[Continued from page 680]

children, although my only operation for tuberculous mastoid was in a boy of eight. In adults the disease usually limits itself to the middle ear. My experience with ultraviolet light (local and general) in this disease has been disappointing, although this modality has been praised by Strandberg³ and by Weinstein and Bendove.⁴ Nor have I found any advantage in myringotomy before spontaneous perforation because the drum is partially lost in most cases anyway, while in a few cases, if the tympanic membrane has not been lanced, it is saved intact as the disease resolves. The hearing, of course, remains greatly diminished in any event. Tuberculosis of the petrous apex has been reported (Grabscheid⁵). It is necessary to differentiate tuberculous otitis media from syphilis, which is rare in the middle ear, and from pyogenic chronic purulent otitis media.

The prognosis is favorable in most cases, and there is usually little disturbing effect on the general health or the pulmonary condition. I have never known tuberculous otitis media to be the cause of death. Building up the general health and being sure that the lung condition is properly and specifically treated help to overcome the activity of the aural lesion. The most menacing end result is the extreme loss of hearing. Almost always the involvement is unilateral, but I have encountered a few bilateral cases.

My experience with tuberculosis of the intranasal passages and the paranasal sinuses has been limited. Nasal tuberculosis has, however, been reported by Vandever⁶ and by Terry.⁷ Hersh⁸ described a case of tuberculous right antrum and reviewed the literature, listing others by Gleitsmann,⁹ Coakley,¹⁰ and Kechwick.¹¹

Oral tuberculosis I have encountered fairly often, although it is rare in comparison with laryngeal disease. Its appearance is marked by lesions of the gums, cheeks, soft palate, uvula, tongue, tonsils, pillars, and pharynx, independent of involvement of the larynx. They begin as small superficial erosions which develop into shallow ulcerations of varying extent. In the infrequent cases with simultaneous oral and laryngeal lesions, the prognosis is worse than either would be alone. Oral lesions are thought to be always secondary to pulmonary phthisis, and the end results of treatment are usually good, provided that the pulmonary disease is also handled intelligently. Whether the infection arises through implantation from tubercle bacilli in sputum or is blood-borne is not definitely known. Local measures of treatment are: electrocautery, light therapy, and topical applications, of which silver nitrate seems to be best. Light therapy has proved more valuable in these lesions because of their easy accessibility. The Kro-

mayer lamp and the cold quartz lamp have aided from both palliative and curative standpoints. Again, however, most reliance must be placed on galvanocautery, which should be used cautiously and not too frequently. Isolated ulcers in the pharynx will heal, but pharyngeal involvement extending upward from tuberculous disease in the larynx is hopeless. Smears and cultures are often positive but may be unreliable for diagnosis because of possible contamination from bacilli in sputum. Biopsy followed by cauterization of the wound may be necessary for diagnosis, but in general the laryngologist can make the diagnosis from inspection alone, together with the history, especially if the patient is known to have pulmonary tuberculosis. Syphilis, malignancy, and Vincent's disease must be ruled out. Martin and Koepf's¹² five patients with tuberculosis of the gums and cheeks were all men, and most of my patients have been men. It is fair to assume that if these lesions are in patients with fibrotic pulmonary tuberculosis, the prognosis is favorable because of better resistance and healing power. Conversely, hematogenous lesions offer a grave prognosis. Farber, Friedland, and Jacobs¹³ have recently reported nine cases of tuberculosis of the tongue, mostly far advanced. Literature on tuberculosis of the tonsils is abundant (Weller,¹⁴ Long,¹⁵ and Alpert¹⁶).

Tuberculosis of the larynx has decreased in incidence more than 50 per cent during the past ten or twelve years because of the extensively increasing use of collapse therapy in pulmonary tuberculosis, to which disease the laryngeal involvement is always secondary. Pneumothorax, phrenic nerve interruption, and thoracoplasty are used early and often. Laryngeal lesions seldom appear after such treatment is instituted and, if already present, they are likely to improve along with the lung condition and the general health, especially if sputa become negative. Dworetzky¹⁷ and Cooper and Benson¹⁸ have stressed these measures in the treatment of laryngopulmonary tuberculosis. Early pulmonary diagnosis with immediate specific treatment is another factor in the prevention of tubercle deposit in the larynx. McConkey¹⁹ has advanced the intake of Vitamin C as a preventive factor in patients taking cod liver oil and tomato juice.

The disease is insidious—often without definite manifestation—and frequent laryngeal examinations should be made in patients with pulmonary tuberculosis. Frank symptoms occur only with active disease, and pain or soreness is noted after the laryngeal lesion has progressed beyond the minimal stage. Hoarseness occurs when the vocal cords are involved or when a pathologic condition in the posterior commissure hinders

[Continued on page 684]



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[Continued from page 682]

approximation. The voice may remain good, with the vocal cords normal in appearance even though the disease is far advanced in the epiglottis, arytenoids, and aryepiglottic folds. Discomfort in the throat and early fatigue of the voice are common. Pain and smarting, referred to the ears when fruit juices are swallowed, suggest erosion, ulceration, or sometimes edema of the epiglottis or arytenoids. Aphonia, dysphagia, odynphagia, and dyspnea occur in advanced cases. Cough, dryness, and tickling are exasperating, and sometimes there is regurgitation of fluids and semisolids through the nose on attempting to swallow.

Mirror laryngoscopy will suffice for diagnosis. Taylor and Nathanson,²⁰ Pancoast,²¹ and others have shown characteristic changes by x-ray, but such examinations are not needed for diagnosis. Pallor or hyperemia of laryngeal tissues is simply part of the picture of the patient's general condition, although unilateral congestion of a vocal cord is significant. Infiltration, edema, erosion, ulceration, etc., can determine diagnosis. It is important to learn by x-ray the patient's lung condition and also to find out whether the sputum contains tubercle bacilli. Presence of one or more of the five cardinal signs and symptoms of tuberculosis, as outlined by Heise and Brown²²—namely, tubercle bacilli in the sputum, hemoptysis, pleurisy with effusion, rales in the upper half of the lung, and x-ray findings characteristic of tuberculosis—will aid in the case of a doubtful diagnosis. Along with others, I have thought for years that the most frequent site of initial lesion in tuberculous laryngitis was the posterior commissure, but in going over all my cases, I found the vocal cords (one or both) to be the first site involved most often. If the change is unilateral, it is significant in early diagnosis. Hyperemia, infiltration, erosion, and ulceration (sometimes irregular mouse-eaten edges of cords) are successive stages. The posterior commissure is second in frequency and manifests itself by infiltration with roughness, vegetations (tuberculomata), or erosion of all or part of the area, more marked to one side of the midline. Next are the epiglottis and arytenoids, which are about equal in frequency. Rarely the ventricular band or ventricle harbors the first implantation of tubercle. Massive advanced laryngeal tuberculosis may be any combination of changes named or the entire larynx may be involved in the pathologic process with usually a predominance of disease on one side—and not necessarily the side of the greatest lung involvement.

Tuberculosis of the larynx is usually slow and chronic, but it may be acute, fulminating, and rapidly fatal, especially in hematogenous tuber-

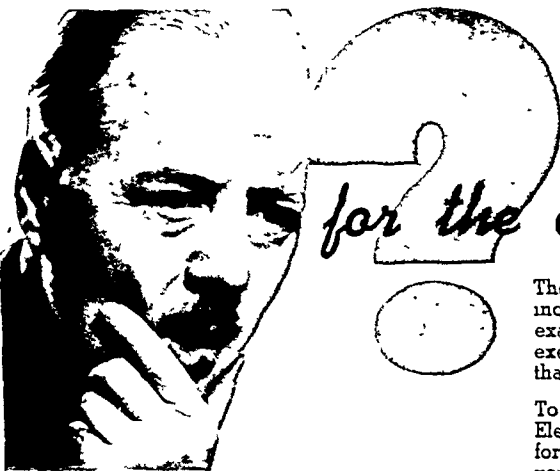
culosis of the lungs and larynx. Central or intrinsic lesions involve posterior commissure, vocal cords, ventricular bands, and ventricles, whereas peripheral or extrinsic lesions attack the epiglottis, aryepiglottic folds, and arytenoids. Intrinsic involvement offers a favorable prognosis; extrinsic lesions are unfavorable or doubtful, and mixed lesions (intrinsic and extrinsic) are often fatal. These types are early, moderately advanced or far advanced and, of course, moderately advanced and far-advanced laryngeal lesions occur mostly in patients suffering from far-advanced pulmonary disease.

The years of greatest incidence are 18 to 35, as in pulmonary tuberculosis, and the disease is more prevalent in men. Today's lowered incidence shows less than 5 per cent in minimal pulmonary tuberculosis, less than 10 per cent in moderately advanced, and less than 20 per cent in far advanced. Laryngeal tuberculosis is considered always secondary to pulmonary tuberculosis.

Consensus of opinion as to the pathway of infection of the larynx favors direct invasion by tubercle bacilli from sputum. Most patients have positive sputum (in Dworetzky's²³ series 91 per cent had positive sputum; in McMurray's²⁴ series 65 per cent of the patients with positive sputum who died had autopsy evidence of laryngeal tuberculosis). Negative sputum cases do develop the disease, such as cases of hematogenous pulmonary tuberculosis. Myerson²⁵ concurs in this belief. Sputum cultured or injected into guinea pigs sometimes proves positive. In patients with no sputum, the gastric contents should be searched for tubercle bacilli. Greene²⁶ suggested that intrinsic lesions are sputum infections, whereas extrinsic lesions may be blood-borne. I believe that most laryngeal lesions begin as surface infections from tubercle bacilli in pulmonary tuberculosis of the bronchogenic type, whereas a small proportion are blood-borne deposits in cases of the hematogenous type. Syphilis and carcinoma are the diseases usually to be excluded in differentiation. Laboratory tests, biopsies, chest x-rays, etc., should not be spared. Neoplasms of the vocal cords are especially difficult to diagnose; anterior location for tumor and posterior site for tuberculosis cannot be accepted alone. Cancer of the epiglottis closely simulates tuberculosis.

Paralyzed vocal cords may occur in a tuberculous larynx, or without laryngeal disease, owing to pressure on a recurrent laryngeal nerve in the chest, as from tuberculous glands, carcinoma of the lung, or subclavian or aortic disease. Prognosis in laryngeal tuberculosis depends greatly upon the type and extent of the lung lesion, as

[Continued on



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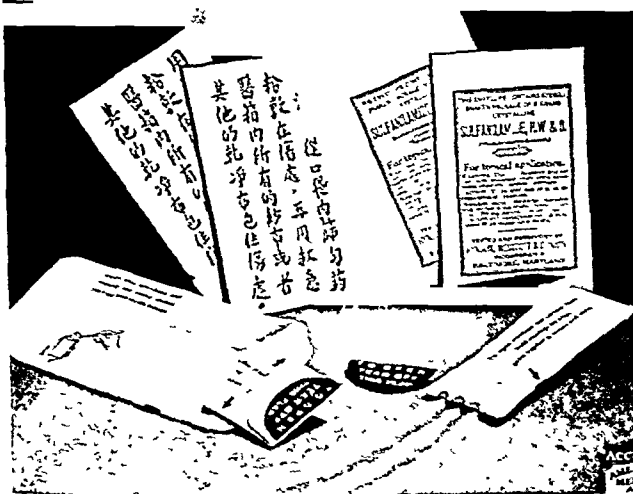
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[Continued from page 684]

well as upon the institution of prompt specific treatment for lungs and larynx. Aural or oral tuberculosis in conjunction with laryngeal disease adds to the gravity and so does pregnancy. Recurrence after complete healing is rare, but it may take place in patients with exacerbation of lung disease.

It is my belief that local treatment is of inestimable value and that it saves many lives. Electrocautery is the most effective weapon against this disease. I have used it extensively for many years with increasingly good results, for it has produced healing in numerous cases and has alleviated much pain and suffering. Patients in whom the laryngeal condition was far advanced and who had remained unimproved through weeks of watchful waiting, have been healed dramatically and comparatively quickly by this facility. I have but rarely had to resort to alcohol injections of the superior laryngeal nerve for relief of pain. Cutting operations (such as amputation of the epiglottis) and curettage are seldom practiced today. Galvanocautery will accomplish better results—more slowly but safely—for the blood vessels are sealed, making the spread of the disease less likely.

I do not use electrocautery in minimal laryngeal lesions, except occasionally to destroy interarytenoid vegetations which interfere with approximation of the vocal cords, as most early cases will heal without cautery. I use the cautery in most moderately advanced lesions (unless confined to the cords alone), and in nearly all advanced cases except when there is high temperature and emaciation. Even these latter are sometimes cauterized to relieve pain, but there is always the danger of sloughing. Best results are obtained if the pulmonary lesion is quiescent or not too active. The better the general physical condition of the patient, the brighter the outlook for the healing of the larynx.

It is more practical to perform galvanocautery by the indirect method (local anesthesia, of course) in the office and at the bedside. Direct laryngoscopy is too formidable and hardly practical for debilitated patients in whom the larynx is very sore and who have to be cauterized repeatedly. Employing only sharp-pointed electrodes simplifies the operation, as one can use them for puncturing infiltrated, edematous, or ulcerated areas, for searing erosions, and for eradicating small tuberculomas or cutting through the bases of vegetations in the posterior commissure. (It is rarely necessary to cauterize vocal cords.) Usually four to eight punctures, or more, are made $\frac{1}{8}$ to $\frac{1}{4}$ inch apart and about $\frac{1}{8}$ inch deep at two-, three-, and four-week intervals for a period of three months to one year, according to

the type of case, etc. Deep punctures must not be made into muscular areas, such as the ventricular bands and posterior commissure because of the danger of causing stenosis, or into the crico-arytenoid joint, thereby risking ankylosis. Preliminary sedatives are not necessary, and severe reactions are uncommon. Tracheotomy has been necessary only three times in eighteen years. Myerson²⁷ reported this procedure more often, some of his patients improving temporarily because of rest of the larynx. Healed larynxes often show distortion and deformity or partial destruction of the vocal cords, but in practically every patient whose larynx heals, the voice will return.

Light therapy has been of little value to me in treating the larynx. I have used natural sunlight and artificial light of many forms for local application in the larynx and for general bodily exposures, i.e., for universal light bath, air-cooled mercury vapor arc lamps, carbon arc lamp units, and natural sunlight solariums, one open and one enclosed with vitra glass; for local treatment, the Kromayer lamp, cold quartz lamp (quartz mercury vapor glow), and the Verba laryngoscope. All are so seldom employed now that I have forgotten the physics of light. Experience in timing eliminates danger to the lungs in general bodily exposures. Voice rest is important.

Topical applications, although not curative, do cleanse the larynx and lessen the cough. No medicines are specific, and I have not had any success with local use of chaulmoogra oil or cod-liver oil. Vegetable oils are used as vehicles for guaiacol and other soothing instillations. Cocaine, butyn, pontocaine, or larocaine are sprayed locally before meals in severely painful larynxes; hypodermic narcotics are reserved for suffering terminal cases. Tuberculin is seldom used. Vaccines, radium, roentgen rays, high frequency current and sulfonamides have not won spurs in this malady.

Blood examinations (red, white, differential, hemoglobin) and sedimentation rates are a distinct aid in control and prognosis. Comprehensive understanding of pulmonary tuberculosis is of great value to the laryngologist, as is close cooperation with the pulmonary specialist, the roentgenologist, and in some cases the thoracic surgeon.

In closing I should like to mention the fact that laryngeal tuberculosis has rarely been present in cases submitted for bronchoscopy to determine a tuberculous ulcer or stenosis in the tracheobronchial tree—at the most, only slight infiltrations of one or both vocal cords. I believe this concurs with the experiences of most investigators, although one or two reports a

[Continued on page 688]

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[Continued from page 686]

few years ago gave rather high percentages—(Bugher, Littig, and Culp²⁸), 76 per cent.

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Discussion

Dr. M. C. Myerson, New York City—Dr. Wilson has just given us a comprehensive picture of tuberculosis of the larynx. Because of his wide experience with this condition, his papers are always worth while. In a paper such as this, however, it is impossible to cover every phase of the disease.

Very few cases of tuberculosis of the larynx have the same type of lesion in the same locations. The various manifestations of this disease are more likely to occur in certain parts of the larynx than in others. Moreover, the lesions are more likely to be extensive and diffuse rather than single and isolated.

It must be borne in mind that tuberculosis is essentially a self-healing disease. By that I mean that the individual either has the ability to heal or has not. While it is true that the cautery is of great value in stimulating the reparative process, it is a fact, nevertheless, that neither cautery nor anything else will help the lesion that cannot form fibrous tissue.

Also of importance is the fact that stenosis of the larynx due to tuberculous disease and which requires tracheotomy is not necessarily fatal. We have treated many such patients who have been alive for varying periods of years.

The oft-repeated statement that early diagnosis means a more favorable prognosis is fallacious. It is not the time of recognition that is important; it is, rather, the nature and extent of the involvement. A patient may have an unrecognized benign lesion in the larynx for a long time which will heal spontaneously. On the other hand, another may present a very extensive involvement, which, even though recognized early, gradually or rapidly evolves into a widespread and disintegrating process which terminates fatally.

In closing, may I make a plea for a greater interest among otolaryngologists in this disease? At the present time, there is a relatively small number of men in this country who have paid any attention to tuberculosis of the larynx.

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Charles V. Barley	43	Stanford	March 3	Ithaca
William H. Bishop	76	Hahne., Phila.	March 9	Manhattan
J. Arthur Cormier	82	Laval	December 11	Rochester
Charles L. Davis	60	Buffalo	February 19	Batavia
Joseph A. Driscoll	56	L.I.C. Hosp.	February 18	Brooklyn
Joseph Grabenstein	66	Baltimore	February —	Woodside
Lesser B. Groeschel	56	P. & S., N.Y.	February 23	Manhattan
Edward Herzog	49	Czechoslovakia	December 27	Long Island City
James E. Holden	77	Buffalo	January 23	Collins
Sergius M. Ingberman	74	Berne	February 18	Manhattan
Louis L. Lefkowitz	44	Univ. & Bell.	March 6	Bronx
Benjamin G. Long	84	Buffalo	March 8	Buffalo
Sylvanus Purdy	66	Bellevue	March 2	White Plains
Michael T. Reynolds	63	P. & S., N.Y.	February 27	Brooklyn
David L. Satenstein	63	P. & S., N.Y.	February 25	Manhattan

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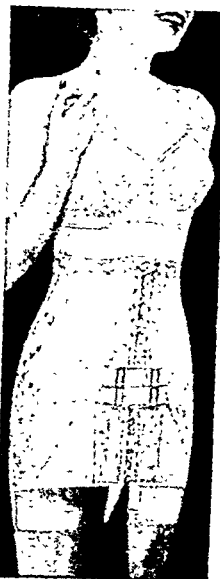
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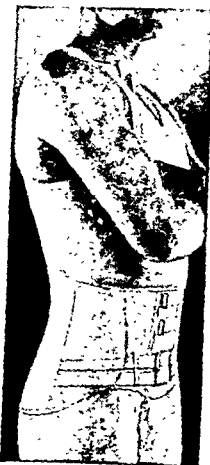
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Case Report

ADULT INTUSSUSCEPTION OF TUBERCULOUS ORIGIN

ABRAHAM BOLKER, M.D., and CHARLES E. HAMILTON, M.D., Brooklyn

NUMEROUS reports are encountered in the literature illustrating the fact that tubercular patients are no different from others in being subject to the same abdominal emergencies, some of them of rare occurrence. Not infrequently the possibility of a tuberculous enterocolitis precludes the diagnosis of an acute abdominal condition that necessitates surgical intervention.

Intussusception in the adult is a relatively uncommon condition. Approximately 5 to 10 per cent of all cases occur in adults. The usual causative agents in their observed order of frequency are tumors of the intestinal tract, benign and malignant; Meckel's diverticulum; inflammation of the vermiform appendix; trauma; ulcerations associated with typhoid, dysentery, and tuberculosis; and simple ulcers.

The classical picture of intussusception of acute nature in the infant is rarely seen in the adult. In the latter, the symptoms usually extend over weeks or months. Vomiting is seen only in rare cases, but colicky, abdominal pain may continue for months. Mucous discharge from the bowel is not so constantly present. The fact that in the adult the obstruction is often incomplete explains why in many cases the diagnosis is difficult. The difficulty in establishing an early diagnosis is a great factor in the high mortality associated with intussusception in the adult.

Although the course of intussusception in the adult is very apt to be chronic rather than acute, the treatment, once the diagnosis is established, is the same as it is for the child—namely, immediate surgery. The dangers of procrastination are as great in the adult as they are in the child. However, in a protracted case the prognosis in the adult is better in view of the greater ability of the adult to withstand the associated toxemia.

Eliot and Corscaden,* in a report on a review of 300 cases of intussusception in adults, state that among them were 5 cases due to typhoid ulceration, 6 associated with dysenteric ulcers, 8 with tuberculous involvement, and at least 3 instances of intussusception with what are described as simple inflammatory ulcers.

To our knowledge there has been no case reported in the literature of intussusception in a patient over 50 years of age associated with a tuberculous ulcer of the intestine as its cause.

Case Report

T. M., a 55-year-old Irish salesman, was admitted to Kings County Hospital on December 30,

From the Division of Tuberculosis Kings County Hospital, Brooklyn.

* Eliot E., and Corscaden, J. A.: *Ann. Surg.* 53: 169 (Jan.) 1911.

1937. His family history was negative. The patient was comparatively well until three weeks prior to admission when he caught cold, developed a temperature of 103 F., associated with generalized weakness, anorexia, and some pain in the right chest. He had lost 20 pounds during his illness. There were no complaints referable to the gastrointestinal tract.

On admission the blood pressure was 120/70, temperature 101 F., pulse 88, respiration 20, weight 110 pounds. Findings were essentially limited to the chest and were those of a caseous pneumonic tuberculosis of the right upper lobe with signs of cavitation. There were no masses, palpable organs, or tenderness. A chest x-ray taken on January 11, 1937, revealed a moderately advanced caseous pneumonic tuberculosis of the right upper lobe with a cavity $2\frac{1}{2}$ inches in diameter *in situ* and a submiliary spread extending downward from the cavity and occupying the greater portion of the right upper lobe.

Laboratory Findings.—The laboratory findings were as follows: December 31, 1937—urine, negative; blood count, red blood corpuscles, 3,140,000 per cu./mm., white blood corpuscles, 7,700, per cu./mm.; polymorphonuclears, 68 per cent; lymphocytes, 32 per cent; hemoglobin, 57 per cent. January 1, 1938—sedimentation rate, 24 mm. in fifteen minutes. February 2—laryngoscopic examination, negative; sputa and gastric washing specimens were positive for tubercle bacilli.

The disease ran a febrile course, the temperature ranging between 98.2 F., and 101.2 F. There was no significant change in the general condition of the patient. The bowels were regular, and diarrhea was noted on only one occasion.

In view of the nature and location of the pulmonary pathology, the presence of tubercle in the sputa and gastrics, it was deemed wise to start an artificial right pneumothorax. After seven treatments pneumothorax had to be abandoned on February 25, 1938, because of the ineffectiveness of the collapse, the upper third of the right lung being adherent to the chest wall. The patient was kept at absolute bed rest with a sandbag on the right upper chest. He had no complaints of significance.

On March 3, 1938, he experienced severe cramp-like pain diffusely through the abdomen, vomited once, and had sour eructations. The temperature was 99 F., pulse 84, respirations 20. The abdomen was tympanitic throughout, with some tenseness of the musculature. There was no tenderness, rebound, or rigidity in any portion of the abdomen. Two dram doses of paregoric yielded no relief. A plain tap-water enema was given with fairly good results. The pain was relieved for 1 hour, only to return and become more or less constant. The following day, March 4, the patient vomited bile-stained material several times. He had anorexia, took sparingly of fluids, and slept little. The pain

[Continued on page 692]

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[Continued from page 690]

continued and there was no significant change in the physical findings of the abdomen. He was given intravenous calcium, glucose infusions, and sedation.

There having been no bowel movement since the enema on March 3, on the morning of March 5, a glycerin enema was administered. This was returned practically clear, except for a few hard, small fecal masses, with no blood. The temperature was 98.6 F., pulse 100 to 110, and respirations 24 to 30. The white blood corpuscles now numbered 18,000; polymorphonuclears, 93 per cent; lymphocytes, 7 per cent.

Later in the day, about three hours after a milk and molasses enema, a liquid stool was passed, pink in color and strongly positive for occult blood by benzidine reaction. The abdomen was rounded, coils of intestine were visible, but peristalsis was not noted. On auscultation a small amount of tinkling was heard over the lower abdomen. No active peristalsis was heard. The abdomen was soft, there being no rigidity or tenderness present.

A flat x-ray of the abdomen revealed dilatation of the loops of the small bowel in the proximal half of the abdomen, indicative of dynamic obstruction of the intestine below this point.

The opinion of the surgical service was that the patient had a small bowel obstruction of unknown cause. Operation was performed by Dr. John Rayeroff on March 6, at 3:30 A.M. and an intussusception was discovered involving the last 12 to 14 inches of the ileum, protruding through the ileocecal valve and filling the dome of the cecum. Its origin was in a disc-shaped broken-down tuberculous ulcer, 2 inches in diameter, possibly from a Peyer's patch, which was approximately 1 foot from the ileocecal junction. This occupied the entire lumen of the bowel except for the mesenteric attachment. The bowel in this region was definitely necrotic, and there were areas of necrosis from this area to within 4 inches of the ileocecal junction. All the layers of the intestinal wall except the serosa were necrotic and devitalized. There were numerous enlarged glands in the mesentery. All the ileum visible was greatly distended. There was a pint of free fluid of straw color within the abdominal cavity. The appendix was normal.

The intussusception was reduced by "milking out" the ileum. As the color of the intestine did not change after hot applications, a foot of the ileum was resected and the proximal and distal ends brought together by a side-to-side anastomosis, leaving a stoma which admitted two fingers. The patient was returned to the ward in a favorable condition.

On the day following the operation, his temperature rose to 101.6 F., pulse 140, respirations 26. The general condition appeared satisfactory. There was no cyanosis or dyspnea. The patient had no complaints.

On March 8, the second day after operation, the temperature rose to 103.6 F., pulse 140, respirations

30. The abdomen was moderately distended. His condition grew worse rapidly, and he died on March 8, at 2:35 P.M.

Autopsy Findings.—The right pleural cavity contained 400 cc. of clear straw-colored fluid. There were numerous tough fibrinous adhesions which bound the greater portion of both lungs to the chest wall. On cut section the right upper lobe revealed a fibrocaceous tuberculosis, honeycombed with small cavities containing creamy, purulent material. The right upper bronchus was almost completely occluded as it entered the consolidated upper lobe. The left lung presented a moderate degree of emphysema. There were no areas of caseation or nodule formation. The lung was fairly crepitant.

The tracheobronchial nodes were moderately enlarged and anthracotic. The mucosa lining the trachea and main bronchi was hyperemic but otherwise normal.

The mucosal and serosal surfaces of the duodenum and jejunum were normal throughout.

The lower end of the ileum was the site of a recent surgical anastomosis, side to side. The stoma of the anastomosis readily admitted three fingers. The anastomosis had been closed by continuous sutures, all of which had held firmly. There was no evidence of leakage or perforation. The wound edges were healed and free from hyperemia. The mucosal surface of the anastomosed area was pale gray and free from ulceration or hyperemia.

At a point 20 cm. proximal to the anastomosis there were numerous ovoid, discrete ulcerations of the mucosal surface of the ileum. These were shallow, being less than 1 mm. deep, and could not be discerned on the serosal surface of the bowel. The floor of the ulcers was smooth and there was no evidence of granulation tissue. The remainder of the ileum was normal.

The mucosal surface of the entire large bowel was moderately hyperemic and free from ulceration. The appendix was normal. The mesenteric lymph nodes were markedly enlarged and on cut section the surface revealed many soft, pinkish-gray nodular masses. There was no evidence of calcification.

Summary

1. A case of intussusception in a male, 55 years of age, with origin in a tuberculous ulcer of the ileum is presented.
2. The clinical and operative findings are described.
3. The pertinent autopsy findings are given.
4. The literature is reviewed.
5. It is stressed that tubercular patients are subject to the usual and rare surgical emergencies as encountered in the nontubercular individuals.

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SHORT BLACKOUT

A sorrowing widow, having a memorial erected in memory of her late husband, had the following inscription carved on it:

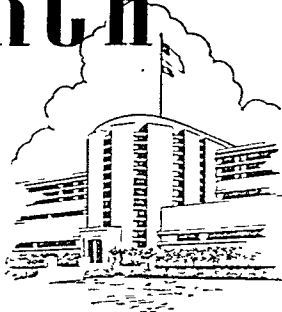
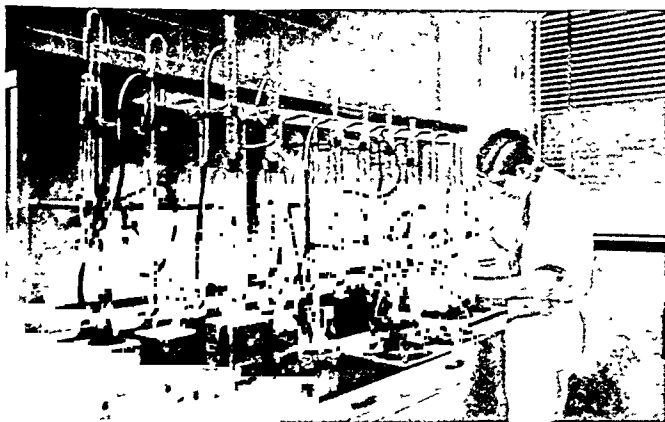
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—*Milwaukee Medical Times*

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Medical News

Medical Protection Against Gas Outlined

AMONG plans now being made for possible war emergencies is one for civilian defense against gas, a plan that is being put into operation on a nation-wide scale, enlisting the services of physicians from every locality. The plan is being developed by the Medical Division of the Office of Civilian Defense. Courses have been presented for physicians selected from the faculties of medical schools to be trained as instructors in the medical aspects of chemical warfare. Arrangements are now being made for the presentation of courses by these instructors in their own medical schools.

Training for nonmedical personnel is provided in Gas Specialist Courses which since early December have been presented monthly at War Department Civilian Protection Schools. These schools are located at Amherst College, Amherst, Massachusetts; Purdue University, Lafayette, Indiana; Loyola University, New Orleans; Occidental College, Los Angeles, California; Stanford University, Palo Alto, California; and the University of Washington, Seattle, Washington.

The Gas Protection Service of the U.S. Citizens Defense Corps has been organized as follows: The Medical Division of the Office of Civilian Defense has a Gas Protection Section responsible for organization and training for gas defense. This section functions through the nine Civilian Defense Regions, which are coterminous with the Service Commands of the U.S. Army. Regional Gas Officers have been designated for several of the coastal regions to supervise and assist the State Gas Consultants and the Senior Gas Officers of defense councils in the organization of state and local programs. The Senior Gas Officer trains Gas Reconnaissance Agents who serve in each zone of the city. These men are responsible for the identification of the agent, the collection of samples, the prevention of casualties, the delimiting of gassed areas, and for cooperation with the Emergency Medical Service, the Health Department, and other agencies concerned in protection against gas.

Instructions to members of the U.S. Citizens Defense Corps on their duties in gas defense have been issued by the U.S. Office of Civilian Defense in Operations Letter No. 104 (Supplement 3 to Operations Letter No. 42), dated January 11.

The duties to be performed before, during, and after gas attacks are outlined for the following individuals and groups: State Gas Consultant, Senior Gas Officer, Assistant Gas Officers, Gas Reconnaissance Agents, Laundry Officer, Commander of the Citizens Defense Corps, Incident Officer, Air Raid Wardens, Police Services, Fire Services, Emergency Medical Service, local Health Department, Public Works, Public Utilities, Transportation Services, and Emergency Welfare Services.

For the Emergency Medical Service the duties are set forth as follows:

Duties before gas attack:

1. Plan with assistance of Senior Gas Officer for the establishment of gas cleansing stations for cleansing gassed patients with other injuries and for cleansing of civilian protection personnel. Each hospital of 150 beds or more should be provided with a cleansing station. Cleansing stations should be available in the ratio of one per 50,000

population and should be located at smaller hospitals or casualty stations where 150-bed hospitals are not available in this ratio.

2. Recruit, train, and assign personnel to gas cleansing stations for cleansing services.

3. Provide instruction, in cooperation with the Senior Gas Officer, for general public and civilian protection personnel in self-protection and self-cleansing (Operations Letter 46)

4. Provide for instruction of physicians in diagnosis and treatment of chemical casualties.

5. Assist hospitals in planning for handling of gas casualties.

6. Assure adequate distribution of protective clothing and gas masks and other protective equipment to members of mobile medical teams, and train personnel in their use.

7. Make provision for training drivers of ambulances and sitting case cars in protection of their equipment against liquid-gas contamination; inform them of arrangements for vehicle decontamination by Emergency Public Works Service.

8. Arrange for the protection from contamination of the equipment used to transport contaminated casualties in so far as it is possible.

Duties during gas attack:

1. Upon advice of the Senior Gas Officer and under the orders of the Commander, man the gas cleansing stations.

2. Advise other services of the U.S. Citizens Defense Corps in regard to first aid cleansing of their personnel.

3. Assign a mobile medical team to gas cleansing stations for first aid.

Duties after gas attack:

1. Evaluate the effectiveness of the cleansing procedures which have been used.

2. Provide follow-up treatment of patients.

3. Prepare inventory of protective equipment available for use in future attacks and obtain additional equipment as necessary.

4. Cleanse bodies of the dead to facilitate identification.

Important functions assigned to the health department in the local program of gas defense are as follows

Duties before gas attack

1. Provide for analyses for war gases in samples of food and water. These tests may be performed in a local health department if laboratory facilities are adequate. In such case it is desirable to utilize the same laboratory facilities for the analysis of war gases of air and other materials. Where laboratory facilities other than those of the local health department are more suitable for use in the analysis of war gases, arrangements should be made by the local health department for the analysis of samples of water and food.

2. Advise the Senior Gas Officer regarding the nature of instructions to the public concerning precautions to be taken in the event of water-supply contamination. Such instructions are to be promulgated by the health officer.

3. Cooperate with waterworks officials in planning for the protection and decontamination of the water supply.

Duties during gas attack:

1. Collect samples of food and water for laboratory analysis if contamination is suspected.

2. Inform the public regarding contamination of food and water supplies, including recommendations in regard to self-protection.

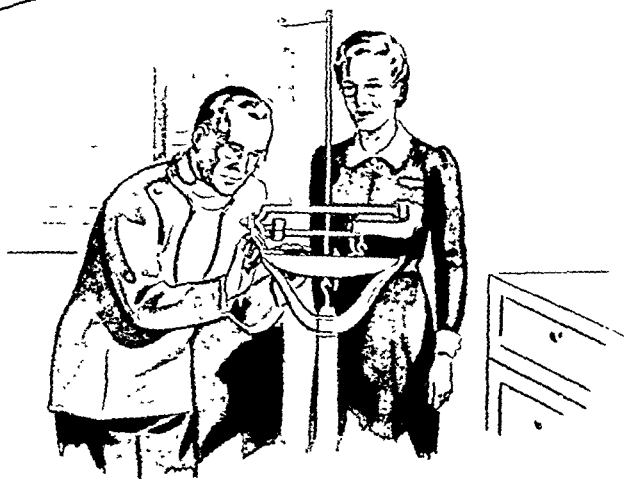
Duties after gas attack:

1. Decontaminate, destroy, or otherwise provide for the handling and disposal of contaminated food supplies.

2. Assist the waterworks in the treatment of contaminated water supplies.

3. Advise the Senior Gas Officer in regard to the safety of the public water and food supplies and inform the public

[Continued on page 696]



IN THE CORRECTION OF *Subclinical Deficiencies*

From the many factors which have been shown to be responsible for nutritional deficiencies, it is clear that more than vitamins and minerals are usually needed for satisfactory correction. Thus the choice of therapeutic measures employed becomes a matter of considerable importance.

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PHOSPHORUS	0.25 Gm.	0.903 Gm.	RIBOFLAVIN	0.25 mg.	1.28 mg.
IRON	10.5 mg.	11.9 mg.	NIACIN	4.95 mg.	7.1 mg.

*Each serving made with 8 oz. milk; based on average reported values for milk.

[Continued from page 694]

regarding contamination of such supplies, and methods of dealing with it.

4. Obtain reports of analyses of samples of water or food and take appropriate action. Save specimens of contaminated water and food for transmission whenever necessary to a Chemical Warfare Service or other laboratory, by the Senior Gas Officer.

Gas masks are now being distributed to the personnel of the protective services. As a guide to local distribution and care of masks, the U.S. Office of Civilian Defense issued Operations Letter No. 106, January 20.

It is recommended that masks be distributed among the protective services of the U.S. Citizens Defense Corps in approximately the following proportions: staff, 12.5 per cent; fire service, 10.5; police service, 18.5; air raid warden service, 30; rescue service, 1.5; medical service, 12.5; public works, 9; and public utilities, 5.5.

Masks should be kept at the post where the protective personnel will assemble during drills or enemy action, not carried by them during their daily activities, the Operations Letter advises. It is recommended also that about 20 per cent of the

masks allocated to each service be stored as a reserve. It is important that the reserves be decentralized as a safeguard against destruction by fire or bombing and also to permit rapid distribution in case of an emergency.

The directive points out that since valuable and critical materials are used in the manufacture of gas masks, the utmost care must be exercised in the handling, distribution, and storage. No person should receive a mask until he has been trained in its use and care, including proper storage, it is advised.

Storage must be in a cool, dry place, and masks should be kept from contact with sunlight, oils, and corrosive liquids and vapors. After use, masks should not be worn by another individual without proper sterilization, instructions for which are given in the OCD publication "Protection Against Gas."

Repair of masks is not to be attempted locally except in case of extreme necessity, the Operations Letter states. Broken and defective masks or those with exhausted canisters should be collected by the local Property Officer and returned to OCD Supply Depots for repair and replacement.

Award for Research on Alcoholism

AN AWARD of \$1,000 will be made this year by the Research Council on Problems of Alcohol for outstanding work on alcoholism during 1943. Rules for the competition are as follows:

1. The research for which the award will be granted must contribute new knowledge, in some branch of medicine, biology, or sociology, important to the understanding, prevention, or treatment of alcoholism.

2. Any scientist in the United States, Canada, or Latin America is eligible for the award.

3. The project may have been inaugurated at any time in the past or during the year 1943, provided (a) that a substantial part of the work be carried on during the year 1943, (b) that it be developed to a point at which significant conclusions are possible before the end of the year, and (c) that a report on the work has not been previously announced and described before a scientific body or previously published.

4. It is desirable, but not necessary, that those planning to work for the award send to the Council . . . a statement of such intention. If the Council receives such information, it can be helpful in the prevention of undesirable duplication of effort. If a research project is conceived and inaugurated later in the year, 1943, a statement of intention may be sent to the Council at a later date.

5. A report on the work and resulting conclusions must be submitted to the Research Council on

Problems of Alcohol on or before February 15, 1944. The Council will provide an outline for use in the preparation of reports.

6. The award will be in cash, and will be given to an individual scientist whose work is judged sufficiently outstanding and significant to merit the award.

7. The Committee of Award will consist of five persons—an officer of the American Association for the Advancement of Science, and four representatives of the Scientific Committee of the Research Council on Problems of Alcohol.

8. If the Committee is not convinced of the outstanding merit of the research done during 1943, as described in reports submitted, it may, at its discretion, postpone the award until another year, or until such time as work of such merit has been performed.

The Council will send on request, to any scientist, an outline of basic policies governing its research program, lists of Council studies (completed, under way, and contemplated), and information regarding the studies of other agencies.

Scientists planning to do research in connection with the award may send a statement of intention to

The Director
The Research Council on Problems of Alcohol
Pondfield Road West
Bronxville, New York

County News

Kings County

In response to an appeal by Dr. John J. Gainey, president of the county society, several hundred Brooklyn doctors donated their blood to the Army and Navy during the recent "doctors' week" for blood donations.

Supervising the campaign to enlist Brooklyn physicians as blood donors were Dr. Charles McCarty, secretary and director of medical activities of the Kings County Medical Society, and Dr. Eugene Marzullo, chairman of the Brooklyn Red

Cross Blood Donor Service and of the society's public health committee.*

. . .

According to an announcement made recently by the War Department, one of the heroes in the battles now being fought in New Guinea is a former Brooklyn doctor, Capt. Rafael R. Gamso. Capt. Gamso, a graduate of Baylor University Medical School, was awarded a silver star for gallantry in action.

[Continued on page 698]

* Asterisk indicates that item is from local newspaper.

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OVER-ALL DESIGN OF EVOLUTION

"NATURE has a time-order," comments a critic of the book, *Genetics and the Origin of Species* by Theodosius Dobzhansky. Mutational changes in various species are locked in what may be called the over-all design of evolution—the time-order, of which mutation rates are presumably a part.

"In physics," observes the book critic, "the time-order is now regarded as arising from absolute or ideal properties of a matrix. Surely, this matrix must control evolution as much as it does physical or material phenomena which are described in its terms in physics. Dr. Dobzhansky's great review is thus more than a survey of high interest and large authority."

It treating the subject of genetics and evolution today, Dobzhansky expresses the modern trend in thought which is away from disorder, crass materialism and chance, toward order, transcendentalism and meaning.

Quoting the author: "Since evolution is a change in the genetic composition of population, the mechanism of evolution constitutes problems of population genetics. Of course changes observed in population may be of very different orders of magnitude, from those induced in a herd of domestic animals by the introduction of a new sire to phylogenetic changes leading to the origin of new classes of organisms. . . . Experience seems to show . . . that there is no way toward an understanding of the mechanism of macro-evolutionary change processes observable within the span of a human lifetime and often controlled by a man's will. For this reason we are compelled at the present level of knowledge reluctantly to put a sign of equality between the mechanisms of macro- and micro-evolution, and, proceeding on the assumption to push our investi-

gations as far ahead as this working hypothesis will permit. . . ."

"The phenotype is . . . what a living being appears to be to our sense organs. The genotype is the genetic constitution, the sum total of the hereditary factors received by the organisms from its ancestors. . . . A phenotype is always the resultant of the interactions between a genotype and an environment. . . ."

"It is vastly easier to render an organism sterile or to destroy it altogether than it is to produce the slightest change in the genotype. . . . Inheritance of acquired characters—a reflection of phenotypic changes in the structure of the genotype—apparently does not take place. . . . Unfortunately, in the heat of the polemics against Lamarckism some statements have been made by geneticists which do not contribute to a clarification of the issues: to this class belongs the assertion that the genotype is not influenced by the environment. . . . The determining environment is, however, not merely the one prevailing at the moment, but rather it is the sum of the historical environments to which the organism has been exposed in its phylogeny. . . . Evolution is possible only because heredity is counteracted by another agent opposite in effect—namely, mutation. In genotypically homogeneous populations, hereditary variation sooner or later arises de novo. . . ."

"The mutation concept has had a tortuous history. Not only has the term changed repeatedly in meaning, but even now it is being used in at least two different senses. Alternatives to the term 'mutation' have been proposed, but all of them have failed of adoption. Many years ago, Waagen (1869) designated as mutations the smallest perceptible changes in the temporal series of forms in a species

[Continued on page 703, col. 1]

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Nassau County

Dr. Francis W. Goddard, former medical missionary to China, has been appointed medical supervisor for the Rockville Centre Public Schools, filling the vacancy left by Dr. James J. Tibone, who has joined the armed forces.

Born in Ning Po, China, of missionary parents, Dr. Goddard came to the States at an early age. He holds a B.A. degree from Colgate, an M.A. degree from Harvard, and a medical degree from Jefferson Medical College. In 1903 he returned to China as a medical missionary and remained there for thirty-five years, leaving as tangible evidence of his labors a three-story brick hospital with one hundred beds and a nurses' training school. He returned to the United States in 1938 and since that time has served on the staff of the Associated Medical Office, an interdenominational organization that cares for missionaries.*

"It is better to look bunched and stay looking than it is to look svelte, sleek, and chic—and die of pneumonia," editorialized the *Nassau Medical News* in commenting on a sharp increase in pneumonia which may be attributed to residents not dressing properly in low-temperature living quarters.*

New York County

The New York Association of Medical Record Librarians has organized a registry to put its members in touch with available positions. Miss Diana Krezmer, vice-president of the Association and record librarian at the New York Infirmary for Women and Children, will be in charge of this placement service.

A maternity mortality rate set by New York City welfare authorities as an "irreducible minimum" fifteen years ago already has been lowered, according to the latest figures from the Department of Health's bureau of statistics. For the first seven weeks of 1943, the rate per thousand births is recorded as 1.9, although the goal of health officials in recent years has been to reach 2.2.

"Present maternity mortality rates have dropped below what looked like an almost impossible goal set for us some fifteen years ago," Miss Hazel Corbin, director of the Maternity Center Association, said. "The rate of 2.2 looked so far from accomplishment then that we thought if we ever reached it, that would be ideal. As a result, it has never before been so safe to have a baby."

The present decline in the rate, which has been dropping fairly constantly during the last decade, coincides happily, she pointed out, with the rocketing figures in the birth rate.

As contributing factors to the stage now reached in the declining graph, Miss Corbin cited the widespread education among women for early and better medical care and the medical studies in obstetrics that have been developed throughout the country. Definite progress can be attributed, she added, to the practice now well established among county medical societies of studying the maternal death records, classifying those that were preventable, and working to prevent repetition of the circumstances.

"Another factor perhaps is that we are more conscious of the value of life today when we see so many

(Continued on page 700)

1917  1943

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Development of an antiseptic, healing dressing for wounds, burns and other injuries from the red blood corpuscles which have been discarded after donors gave their blood for use as plasma is reported in the January issue of *The American Journal of Surgery*.

The authors of the article, entitled "Human Red Cell Concentrate for Surgical Dressings," are Dr. John J. Moorhead, a specialist in traumatic surgery, involving the treatment of wounds, and Dr. Lester J. Unger, hematologist and associate clinical professor of surgery at the College of Physicians and Surgeons, Columbia University.

Dr. Moorhead, who was at Pearl Harbor when the Japanese attacked, and who performed many operations on wounded men, has been conducting experiments with Dr. Unger since April at New York Post-Graduate Hospital.

The doctors made their first clinical use of the corpuscles on April 28, 1942, in the case of a "knee joint arthrotomy (surgical incision) torn apart by a delirious patient." Red cells of a semiliquid consistency were placed in the joint, the article says, and after several applications the entire incision was thus closed.

In a second case of "extensive burns of both extremities" cited in the article, the favorable outcome was "outstanding, notably because many other types of treatment had been tried in vain."

Colleagues of Dr. Moorhead and Dr. Unger at Post-Graduate Hospital and elsewhere have used the treatment for infected and noninfected wounds, burns, and certain types of ulceration.

Dr. Moorhead and Dr. Unger have formed several theories to account for the beneficent effects of the once apparently useless red-cell discard. "Perhaps it acts as an occlusive and reduces oozing and reinfection," they write. "The very high protein content of the material may play a role. There may be some specific element which in this concentrated form is of value, or the process of destroying or disintegrating cells may stimulate cell reproduction."*

Oneida County

Dr. Arthur H. Cummings announces the opening of an office in Rome for the general practice of medicine. Dr. Cummings comes to Rome from a recent assignment with the U.S. Public Health Service Reserve Corps in Virginia.

For nine years he was engaged in general practice at West Winfield and Clinton, and for the past twelve years has been associated with the New York State Department of Health and the U.S. Public Health Reserve Corps.*

Orange County

Dr. J. Emerson Noll has announced that Dr. William H. Foege has become associated with him in his practice in Port Jervis.

Dr. Foege is roentgenologist in the French Hospital in New York City and also had an office in the city.

He has served as assistant professor of physiology and anatomy in Long Island College Medical School and is a former captain in the Medical Corps of the 7th Regiment, New York State Guard.*

Rensselaer County

Dr. Robert E. DeFriest, of Troy, has resigned as medical consultant for the Rensselaer County Welfare Department. The resignation was prompted by the pressure of private practice, it was said.

(Continued on page 702)



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Medical Society of the State of New York

Members of the House of Delegates will do well to make reservations at the Hotel Statler in Buffalo now for May 3 and 4, 1943. This applies also to those planning to attend the scientific sessions beginning on Tuesday May 4 and extending through Thursday May 6, 1943. Address the Manager of the Hotel Statler, Buffalo.

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[Continued from page 698]

lives being lost on the battlefronts," Miss Corbin added.

The progress made has borne out the earlier contention of medical and health officials that two-thirds of the deaths of mothers in childbirth were preventable, she said.

"When our death rate was so shameful," she continued, "the three major causes were infection, toxemia, and hemorrhage. Those three causes still maintain, although they have been greatly reduced."

New York's rate of maternal mortality is far below the rate for the country as a whole, according to a comparison with figures issued by the Children's Bureau. The most recent compilation issued covers 1941, when the rate was 3.2. Anticipating the records still to be issued for last year, Miss Corbin said it was reasonable to believe that the 1942 rate would be at least 10 per cent below the previous figure.

Because of the difficulty of gathering statistics in wartime, comparable figures for other countries are not available, although Miss Corbin added that the United States need no longer look with envy, as it has for years, on the records of the more progressive countries abroad.*

The New York Physicians Association recently elected the following officers for the current year: President, I. M. Brenner; president-elect, Elihu Katz; first vice-president, Jacob Buckstein; second vice-president, Joseph L. Morse; secretary, A. J. Greenberger; recording secretary, Samuel Hochman; treasurer, Joseph Q. Jonas.

Hamilton Southworth, M.D., has joined the staff of the medical division of the Office of Civilian Defense as a member of the scientific development and research section.

"Metropolitan News Briefs," a regular feature of the county society *Journal*, carried the following personal items on February 27:

"Frank A. Calderone, M.D., has been appointed Deputy Health Commissioner, succeeding George F. Palmer, M.D., who resigned February 13.

"The New York Society for Clinical Ophthalmology will hold its March meeting in conjunction with the Section of Ophthalmology of the New York Academy of Medicine on March 15.

"Major Charles Robert Rein, M.C., chief, division of serology, Army Medical School, Army Medical Center, Washington, D.C., will give a series of seven lectures and three demonstrations on the "Present Status of the Serodiagnosis of Syphilis" to matriculants of the department of dermatology and syphilology at the New York Skin and Cancer Hospital on March 1, 2, 3, and 4.

"J. Burns Amberson, Jr., M.D., has been re-elected president of the New York Tuberculosis and Health Association.

"Howard Fox, M.D., has been appointed Consultant to the Secretary of War in Tropical Medicine.

"At a recent meeting of the Association for the Advancement of Psychotherapy the following officers were elected: President, Frederic Wertham; vice-president, Joseph Wilder; secretary, Emil Gutheil."

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GENERAL PRESCRIPTIONS

"Don't fuss if you are getting older. If you weren't getting older you wouldn't be here at all."

"It is just as well to forget your troubles, as there will be a lot more coming anyhow."

"I divide the world into three classes: the few who make things happen; the many who watch things happen; and the overwhelming majority who have no idea of what happens."—*Nicholas Murray Butler.*

OVER-ALL DESIGN OF EVOLUTION

(Continued from page 699)

of ammonites; these changes have a definite direction, and their gradual accumulation with the passage of time leads to the appearance of types progressively more distinct from the progenitor. To what extent Waagen's mutations correspond to the mutational steps observed by geneticists is an open question.

"The creators of the mutation theory were Kojinsky and De Vries. The latter (De Vries, 1901) defines it as follows, 'As the theory of mutation I designate the statement that the properties of organisms are built from sharply distinct units. . . . Intergrades, which are so numerous between the external forms of plants and animals, exist between these no more than between the molecules of chemistry.' A mutation is, then, a change in one of the units which at present are known as genes. The comparison of genes with chemical molecules may prove to be a truly prophetic one."

(*Genetics and the Origin of Species*, Theodosius Dobzhansky, Columbia University Press, 379 pp., bibliography and index, \$4.25.)

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Peacetime visitors to San Diego would be surprised today if they could take a cruise over the Submarine Gardens there in one of those glass-bottom boats that formally provided such interest.

Surprising enough in ordinary times—these Submarine Gardens which line much of Southern California's coastline—a visitor now, if permitted to look below the waters, would see men as well as bright-colored fish moving in and out of the rocks.

Men in diving helmets are doing an essential war job, strange as it might seem. Their important work is picking clumps of sea fern from the lush underwater growths. This is Agar sea fern, one of the many very essential products that Uncle Sam wants these war days.

Agar-agar, the gelatin made from the fern, gives smoothness to ice cream and certain cheeses. More important, it's the one essential gelatin for which no substitute has been found in making laboratory tests of drinking water, milk and food to safeguard civil and military health.

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Man is a chameleon according to Ripley—when he is angry he turns red, when scared he turns white and when cold he turns blue. His color becomes yellow when sick, purple when choked, pink when embarrassed, black and blue when bruised, and he turns green when envious.

Ripley forgot that man turns gray with age and invisible in a blackout.

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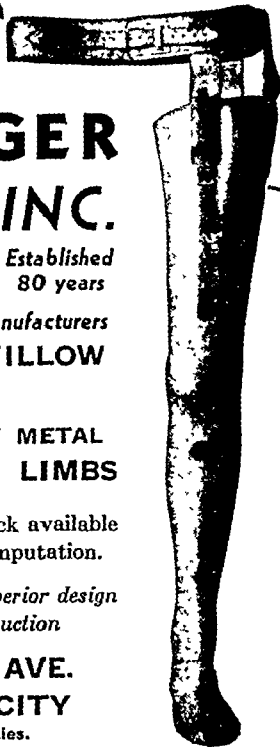
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[Continued from page 701]

Appointment of Dr. P. Huntley Austin, of Castleton, to fill the vacancy was announced by Welfare Commissioner John J. Ahern following the receipt of Dr. DeFriest's resignation.

The appointment is of a temporary nature, pending the return of Dr. H. Gordon Anderson, of Troy, who left the post to enter the Army Medical Corps several months ago.*

Suffolk County

The monthly communicable disease report for November of last year as published in the January "Newsletter" of the Suffolk County Medical Society discloses that Huntington had but nine cases, divided as follows: cancer, 1; chickenpox, 1; scarlet fever, 3; syphilis, 2; and tuberculosis, 2.

• • •

Dr. I. Fred Frankel, of New York City, has established an office for the practice of medicine in Riverhead.

He received his degree in medicine from Bellevue Medical College and was formerly resident physician at Danbury Hospital, Danbury, Connecticut.

Tompkins County

Miss Florence A. Curtis has been appointed executive secretary of the Otsego County Tuberculosis and Public Health Association, with headquarters at Oneonta, following service since 1941 in a similar position with the Tompkins County Tuberculosis and Public Health Association. Miss Curtis holds the degree of B.S. in physical education from Skidmore College.

Mrs. Mildred S. Crittenden, chosen by the Tompkins County Association to succeed Miss Curtis, has been employed during the past year as nutritionist by the Cayuga Health Association, Auburn. Mrs. Crittenden holds Red Cross certificates for teaching nutrition and canteen work.—S.C.A.A. News

Ulster County

The county society at its last meeting elected Dr. J. S. Taylor of the Kingston city laboratory as president, to succeed Dr. Edward F. Shea. Other officers elected were: Dr. Maurice H. Silk, vice-president; Dr. Chester B. Van Gaasbeek, treasurer, and Dr. Clarence L. Gannon, secretary.

Westchester County

The Westchester County Medical Society recently renewed its appeal to Westchester families that at least one person in each household be trained as a home nurse.

The Medical Society pointed out that in the event of serious increases in respiratory diseases a large number of chronic and convalescent patients may have to be cared for in their homes because of crowding of the hospitals.

Dr. John B. Ahouse, of Yonkers, chairman of the society's public health committee, said that a person trained by the Red Cross in home nursing can be a valuable aid to a physician at a time when his services are at a premium and registered nurses are difficult to find.

"Training in home nursing is just as essential under wartime conditions for the defense of our homes as are air raid precautions," Dr. Ahouse declared.

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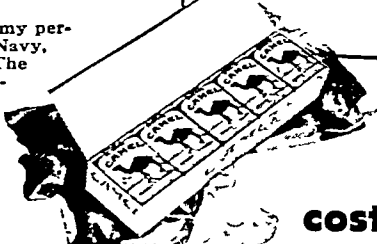
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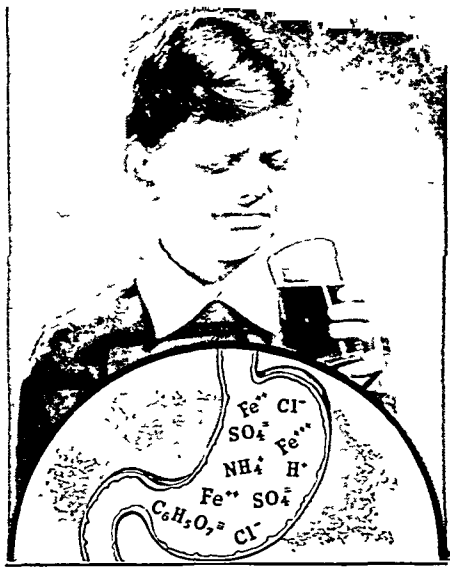
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NUMBER 8


Published twice a month by the MEDICAL SOCIETY OF THE STATE OF NEW YORK. Publication Office: 20TH AND NORTHAMPTON STS., EASTON, PA. Editorial and Circulation Office: 292 MADISON AVE., NEW YORK, N. Y. Change of Address: NOTICE SHOULD STATE WHETHER OR NOT CHANGE IS PERMANENT AND SHOULD INCLUDE THE OLD ADDRESS. Fifty cents per copy—\$5.00 per year. Entered as second-class matter March 13, 1939, at the Post Office at Easton, Pa., under the Act of August 24, 1912.

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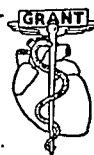
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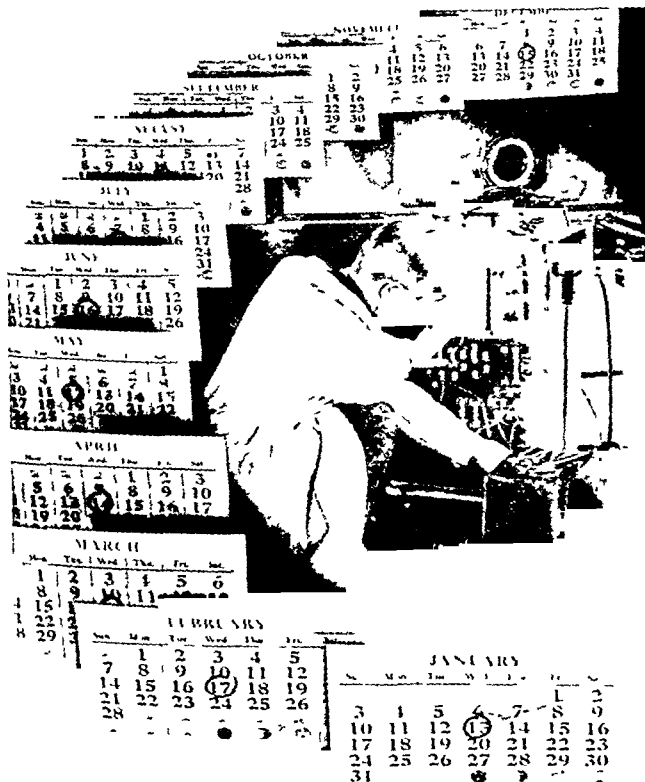
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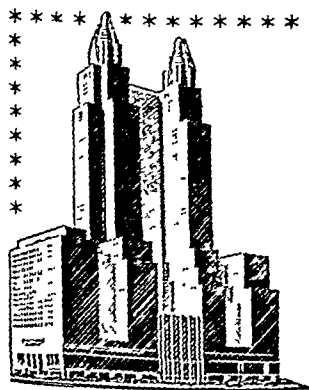


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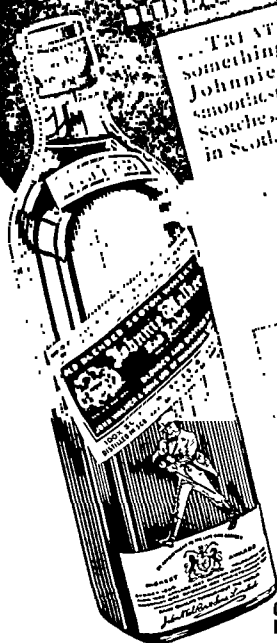
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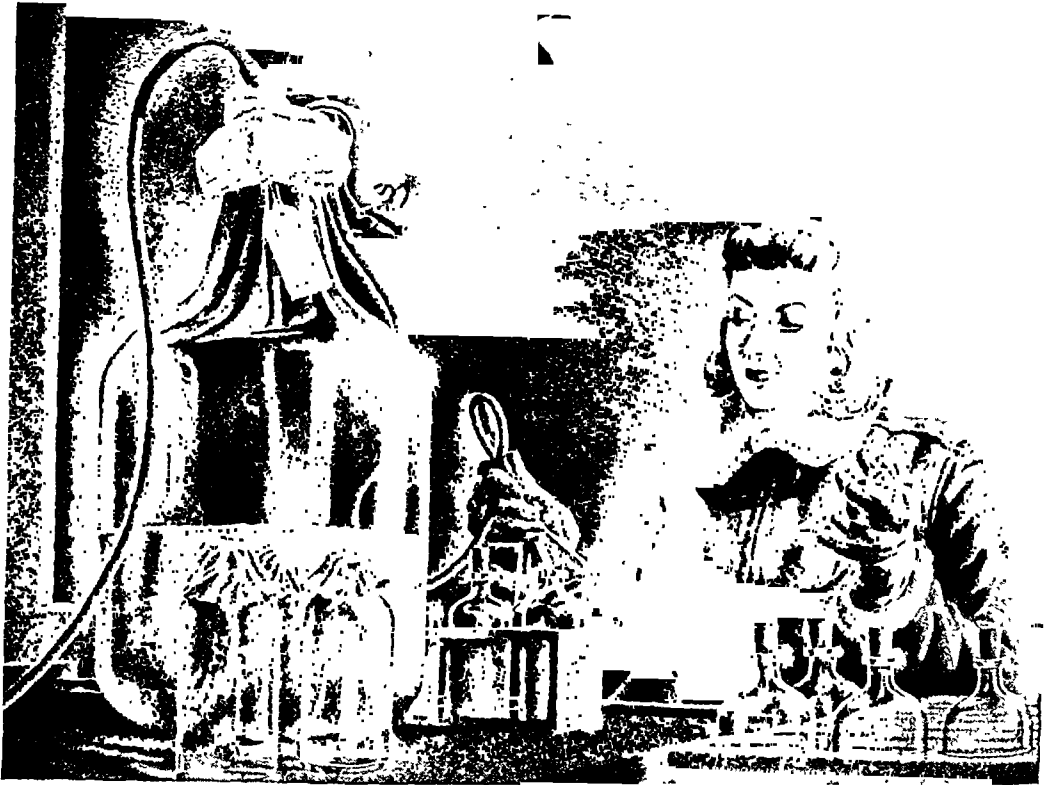
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VOLUME 43

APRIL 15, 1943

NUMBER 8

Editorial

Meeting You at Buffalo?

Of course we will meet you there, May 3-6; this year, more than ever, your presence is important; important to your State Society, important to your community, important to you. Communities can well spare some of their physicians to attend this meeting. The need for disseminating new scientific information is one of the imperative demands of the hour.

The program places special emphasis on war medicine. There will be sessions devoted to emergency defense, protection from chemical warfare, use of blood plasma, tropical diseases, industrial medicine, how to safeguard the lives and health of industrial workers under wartime conditions. Specifically, on Tuesday, May 4, at 3:00 P.M. the first general session will be held, Dr. Dexter Davis, presiding. Colonel George Baehr, Chief Medical Officer, O.C.D., Washington, D.C., will speak on "British and American Experiences in Civil Defense." Captain Reynolds Hayden, M.C., U.S.N., Commandant, Third Naval District, New York, will present a "Summary of the Modern Treatment of War Injuries."

The "Care of Soft Tissue Injuries" will be discussed by Forrest Young, M.D., assistant professor of surgery, University of Rochester School of Medicine. And "Continuous Caudal Anesthesia in Obstetrics: Demonstration of Catheter Technique for Administration" will be shown by Francis R. Irving, M.D., professor of clinical obstetrics, Syracuse University College of Medicine, and C. Albertson Lippincott,

M.D., and Frank Meyer, M.D., of Syracuse.

Then on Thursday, May 6, at 2:00 P.M., there will be a "Symposium on Plasma." You should have at least some of your questions on this subject answered. For, "The Physiologic Aspects of Shock and Its Treatment with Plasma and Other Blood Substitutes" will be discussed by H. Necheles, M.D., Ph.D., professorial lecturer, Department of Physiology, University of Chicago. "Laboratory Aspects of the Preparation and Biologic Control of Plasma" will be presented by A. Milzer, M.S., Ph.D., Associate in Research and Production Bacteriologist of Serum Center, Michael Reese Hospital, Chicago. "Principles and Methods of Desiccation of Plasma" will follow, by F. Oppenheimer, Ph.D., Physicist in Charge of Production and Research of the Serum Center, Michael Reese Hospital, Chicago; after which "The Clinical Application of Plasma" will be presented by Sidney O. Levinson, M.D., Director of The Samuel Deutsch Convalescent Serum Center, and Chairman, Blood Plasma Committee, Civilian Defense, Metropolitan Area, Chicago.

You cannot very well obtain this up-to-the-minute information by staying home, and who can say how soon or how badly you may need it?

Remember that the men who have gone with the armed forces depend upon you who remain here to hold the standards high, to carry on with the work of the Society, to protect with your knowledge and skill those

whom they have left behind in your communities, in your care.

Therefore we hope that from May 3-6

you will put aside other things and help to make the Annual Meeting in Buffalo the success it can be only if you make it so.

Social Insurance

In a recent address before the Kings County Medical Society,¹ Mr. Louis H. Pink said in part, commenting on the *Beveridge Report*:

"Sir William makes it clear that his plan for freedom from want is based upon very important prior considerations, which have not been sufficiently stressed in this country:

"That the world after the war is a world in which the nations set themselves to cooperate for production and peace, rather than to plotting for mutual destruction by war, whether open or concealed.

"That the readjustments of British economic policy and structure that will be required by changed conditions after the war should be made, so that productive employment is maintained."

"Increasing the number of persons covered and the amount of benefits, provided such broadening is based upon long-term ability to pay, need not be postponed until after the war. But, standing alone, increased insurance coverage cannot provide freedom from want. Security must be based first of all upon a different kind of world. The nations must cooperate with each other so that economic benefits will be available to all and trade may flow freely. The standard of living must be increased, not only in one or two nations, but generally throughout the world. We must, through encouragement and stimulation of private initiative and worth-while public enterprises, see to it that people are fully employed in productive effort. If these two objectives are not accomplished, it is idle to talk about any considerable extension of social security as a permanent plan.

"Why is so little thought and planning given to these basic necessities and so much to the mere passing of laws which will extend compulsory insurance benefits? Are we not getting the cart before the horse?

"Social insurance cannot create wealth; it can only distribute it more equitably. Any politician can propose a plan for extending social security, but only a statesman can erect it upon the base of full employment and international economic cooperation. We should increase our social security benefits and extend them as rapidly as we can, but there is danger that if we get this intricate machine speeding too rapidly and have not sufficient oil, we may burn out the bearings."

It is well that so qualified and experienced a man as the former State Superintendent of Insurance, now president of the Associated Hospital Service, should emphasize these points. We hope he will continue to hammer them in, and we believe that every physician will lend a hand to assist him.

Commenting on his address, the *Westchester Medical Bulletin*² said editorially:

"He cautions those who would apply the British plan to the United States, to consider the existing differences in wage scales in the two countries; to remember 'the sincere attachment of our people to the preservation of reasonable political power and authority in the state and local communities'; and to make allowance for the desire of Americans to voluntarily provide for themselves and their families....

"One cannot buy the experience of twenty years in two years; hence, Mr. Pink cautions us against listening to those who suggest that we can make up for lost time, skip over all the evolutionary steps, and improvise a mature and workable system of social insurance surpassing in excellence anything developed in Europe after decades of painstaking experiment.

"Even when Mr. Pink was our State Superintendent of Insurance, he was well known as a proponent of voluntary efforts in the field of social insurance.

"In our opinion, it is foolhardy for one to oppose the trend toward social security just as it is foolhardy, if not indeed suicidal, to oppose the principle of collective security among nations. But, as Mr. Pink so admirably states, 'social insurance cannot create wealth; it can only distribute it more equitably,' and we would do well to put first things first, by first making secure the social and economic bases for the untrammelled creation of wealth before devoting all our attention to the task of spreading it around."

Unless such common sense as that of Mr. Pink is heeded we are all likely to find ourselves in the situation of Motteux, of whom Rabelais wrote: "He left a paper sealed up, wherein were found three clauses as his last will: 'I owe much; I have nothing; I leave the rest to the poor.'"

¹ February 16, 1943.

² March, 1943.

Bad News

It is with regret that we learn from the *Journal of the American Medical Association*¹ of the failure so far of some of the large cities of the nation to meet their 1943 quotas of physicians for the armed forces, among them New York City. Says the *Journal*:

"The responsibility rests unquestionably on the failure of young available physicians in the large cities of the country, particularly those of the eastern seaboard, to volunteer. Officers of the medical societies of New York, Massachusetts, and Connecticut were present² and the situation was placed before them. The rural areas of the United States have contributed doctors not only up to such quotas as were assigned to them but in many instances well beyond these quotas; it is simply impossible to anticipate that they will make a further contribution at this time. In the meantime, New York, Brooklyn,³ Boston, and some of the larger communities in the states of Connecticut, New Jersey, Pennsylvania, and California have failed even to approximate their quotas."

This will not be cheering news to our present members in the armed forces when they read of it. Nor is it pleasant to have to print it. But facts are facts.

"The needs of the armed forces for physicians during 1943 are well defined. The number of physicians to be expected from recent graduates, interns, and those now holding residencies have been determined. Beyond this number at least six thousand more physicians must come from the civilian population. The Procurement and Assignment Service for Physicians, Dentists, and Veterinarians has devised a technic which involves, first, a determination of the availability of the physician concerned or his essentiality for any civilian position which he occupies; second, notification of the physician of his availability and a request that he appear before his local procurement board; third, a notification of the Selective Service Board of the fact that the physician concerned is considered available and that he has failed to volunteer."

This procedure is as fair and considerate as anyone could expect. An appearance in person before his local board should go far to straighten out and to clarify on a *local* basis any misunderstandings or misinterpretations which may exist in the mind of any physician. This should be sufficient in most cases. We assuredly hope so, but—

"In some instances physicians have declared flatly to representatives of the Procurement and Assignment Service and the Officer Procurement Service that they do not wish to volunteer and that they will not volunteer. When it is known to other physicians in the community that a physician under 38 years of age, declared available by the Procurement and Assignment Service, refuses to volunteer in this time of the nation's need, when many an older physician, frequently with innumerable obligations, has given up his home, his practice, and the responsibilities of years to participate in this war, the public has a right to know that the younger physician is not willing to do his part. Certainly the Procurement and Assignment Service should consider the possibility at this advanced stage of the war effort of making public through the state medical journals not only the names of those who are already participating in the war but also the names of those who have been declared available and have not themselves ever indicated a willingness to participate. Let them be called before the bar of public opinion!"

We hope sincerely that these extreme measures can be avoided, but, if not, we are heartily in accord with the suggestion of the Editor of the *J.A.M.A.*; let them be called—and quickly!

1. *J.A.M.A.* 121: 1092 (March 27) 1943.

2. At a recent meeting in Washington of the Directing Board of the Procurement and Assignment Service for Physicians, Dentists, and Veterinarians, with representatives of other governmental agencies.

3. Since publication of this editorial by the *J.A.M.A.* we are informed that there are now in service from Brooklyn about 36 per cent of all of its physicians.

Correspondence

Gasoline Rationing

*An Open Letter to the Gasoline Rationing Branch,
Office of Price Administration*

February 17, 1943

Editor, NEW YORK STATE JOURNAL OF MEDICINE:

The open letter on Gasoline and Tire Rationing printed in the October, 1942, number of the *A.M.A. Journal* and reprinted in the December 15, 1942, issue of the *NEW YORK STATE JOURNAL OF MED-*

CINE raises the question of whether gasoline rationing officials have as much understanding of the actual practice of medicine as they have sympathy for the new problems raised by the lack of gasoline, lack of rubber, new parts, mechanical service, and new vehicles.

The steady wear and tear on doctors' cars; difficulty of proper mechanical maintenance; the blank prospect of obtaining new cars; the steady withdrawals of remaining new cars by the armed forces; the problem of what to drive while the physician's professional car is laid up for repairs; are beginning to come home to the average doctor with increasing force.

The conception that reduction of motor transport of medical care is like cutting down on truck deliveries of installment furniture or other purchases is mistaken in the first place. The physician can cut down to a certain irreducible minimum, but no further. He cannot travel 80 per cent of the way towards a woman in labor. He cannot journey 50 per cent of the way towards a man having a heart attack. He must go all the way. He has already abandoned pleasure driving because his car will not stand all the professional driving still in store for it. But the driving he must do will have to be placed in a category far ahead of most transport, instead of away behind the holders of "T" books; when, as, and if, the gasoline shortage becomes any more acute.

Mr. Ickes' plan to ration gasoline to the dealers to dole out as they see fit, without specific instruction as to where the doctors' needs stand on the gasoline priority list, may turn out to be a virtual travesty if gasoline emergencies during the next few years should continue, or become more acute. Having plenty of "C" coupons will not suffice if commercial vehicles have dried up the gasoline pumps before the physician attempts to purchase gasoline for his professional use.

Hon. Prentiss M. Brown, the new Price Administrator, is now making a determined effort to simplify procedures in the OPA. There need be no gasoline shortage for doctors if he can be persuaded that gasoline for doctors' cars should take precedence over the need for gasoline to be used in the great majority of commercial vehicles. Medical care has been determined by the U.S. Supreme Court to be one of the basic necessities. Transportation thereof is entitled to a high priority. Therefore there should be no doubt in the minds of the doctors, or in the minds of their patients, that the doctor is going to receive the gasoline he needs to practice medicine with; and that, if necessary, he is going to receive it before certain commercial vehicles are supplied.

Recently it has been suggested that 66 per cent of the retail gasoline dealers be eliminated and that gasoline be dispensed by a single combine to release men for war work. If this should go into effect, the big users would get the gasoline and the medical men could take what is left, if any. The time to safeguard our interests, and the interests of the doctors' patients is while big changes are in the making—not after they have been made, and found seriously wanting. Following are suggested changes in the present arrangement:

1. Doctors should be taken out of the "C" category and placed in the "T" classification.

2. Every physician should swear to the amount of gasoline he needs for three months.

3. He should receive the necessary number of "T" books to cover his requirements.

4. In the event that he overestimates the number of coupons he needs, he should be required to use up the excess before applying for more.

5. If he underestimates his mileage, he should receive additional coupons on the basis of an amended statement.

6. The doctor's gasoline requirements should take precedence over the majority of "T" book-holders.

7. Consideration of a doctor's requirements should be taken away from the anonymous and ever-changing subcommittees of local gasoline rationing boards.

8. Provision should be made for gasoline for the vehicles doctors drive on their professional visits while their professional cars are being serviced or are under repair.

9. Physicians should not be forced to use up all their "A" coupons before using "C" or "T" coupons, as the existing rules leave no coupons for gasoline for essential use after the first few days of the validity of a new series of "A" coupons.

10. Since every specialist is apt to be called to a home or hospital, he should receive supplementary gasoline in the amount needed.

The statement that "Mileage traveled daily or periodically between home and lodging and a fixed place of work is not considered preferred. Physicians who conduct their practices in offices, as many specialists do, are not eligible for preferred mileage," and the statement in paragraph 5 of the letter from the OPA that "Should he be assigned to a hospital, clinic, or institution after a ration card for calling on his private practice has been issued, he can use public means of transportation at the price of his personal inconvenience," both indicate unfamiliarity with actual conditions in the field. Busses are slow, late, overcrowded; taxicabs are impossible to engage promptly. In the meantime it is the patient who is being inconvenienced, worried, or even endangered, while the physician waits on the street corner—if the use of overburdened public-conveyance systems and facilities is the recommended way to make professional visits.

Up to date there is a gasoline shortage and a doctor shortage. One way to insure adequate medical care in this national emergency is to avoid raising any doubt about whether the remaining physicians are going to be able to get enough gasoline. This can be done by not "tailoring" their needs; and by being certain that their needs come before the needs of commercial transportation far less important to the national health, and economy, than mobile medical care.

RICHARD H. SHERWOOD, M.D.
Niagara Falls, New York

PATHOGENESIS OF CONGENITAL ANOMALIES OF THE INTRAHEPATIC AND EXTRAHEPATIC BILE DUCTS

Report of a Case of Polycystic Disease of the Liver and a Case of Atresia of the Bile Ducts

SYLVAN E. MOOLTEN, M.D., New York City

Role of Embryonic Organizers in Congenital Malformation

Pathologists owe a very great debt to Spemann and subsequent experimentalists in the field of embryology for having provided a key to the understanding of malformation.¹ Differentiation in the embryo was shown by them to depend normally upon two major factors—an intrinsic predisposition within the primitive cells to (“cell-competence”) and the stimulus of chemical nature elaborated by certain previously specialized cells (“organizers”). The two factors are anatomically and functionally related. To cite an example, the primitive lens is formed by the differentiation of ectodermal cells in the head region in response to the inductive stimulus of the outgrowing optic vesicle of the forebrain. Ectodermal cells from other regions, although less intrinsically predisposed to undergo this type of specialization, may nevertheless be induced to undergo lens-differentiation if transplanted to the head region overlying the optic vesicle. Conversely, transplantation of the optic vesicle will induce lens formation beneath the ectoderm of any region. The optic vesicle is said to be an “organizer” for lens formation. The chemical (hormonal) nature of this induction has been demonstrated by the fact that soluble substances extracted from the cells of the optic vesicle possess the same inductive power as the living cells themselves.

The harmonious interplay of these two factors, cell-competence and organizer-induction, insures complete integration between the component cells of each growing organ. It seems likely that this principle of “double assurance” is important throughout embryonic development. Cell-competence, however, cannot be said to remain constant. Normally, as differentiation approaches completion, cell-competence becomes attenuated, and the fully differentiated cell may be said to be relatively refractory to further organizer influence. Up to a certain stage of growth, however, a considerable measure of reversability exists. Mesodermal tissue which has become no-

tochord is capable in very early embryos of inducing the formation of a secondary neural plate in any part of the epidermis. Ectoderm may even become converted to notochordal mesoderm if transplanted into a powerful organizing “field” such as the region of the foregut. The theory of the immutability of the three germ layers is superseded, therefore, by the doctrine of differentiation by multiple organizers.

By interference with the orderly sequence of embryonic organizers or by alteration of the spatial configuration of various induction centers, numerous malformations such as ectopias and duplications (plus formations) have been produced experimentally. Transplantation of cells from the dorsal lip of the blastopore may induce the formation of an entire new embryo. In addition, embryonal defects of many sorts have been seen in which the mechanism seems to have been a partial or complete suppression of embryonic induction (minus formations). Lehmann found that chlorobutanol abolished specifically the induction of the lens by the optic vesicle, resulting in either complete suppression of the lens or in an abnormally small lens.² Lens formation was also blocked by the interception of a thin layer of mesodermal cells between the epidermis and the optic vesicle.³ Lithium salts were found to inhibit the development of the embryonic notochord.⁴ Hale described eyeless pigs born of vitamin A-deficient sows, and in similar experiments Zilva and his associates reported failure of limb formation.⁵ These and other examples prove that faulty differentiation occurs either through a diminution in cell-competence in spite of normal inductive stimulus, or through interference with the mechanism of organizer-induction in normal cells. The operation of the principle of “double assurance” makes it probable that minor degrees of insufficiency of either factor do not interfere with differentiation.

In spite of the wealth of experimental data, the application of the principles of organizer induction to the study of the pathogenesis of malformations in human beings is still based largely on speculation. The formation of various types of teratoma has been explained by Krafka⁶ on the basis of a deviation of organizers at critical stages of induction. It is theoretically possible that every type of maldevelopment not due to pri-

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

From the pathologic laboratory of St. Peter's Hospital, New Brunswick, New Jersey.



Fig. 1. Congenital polycystic disease in newborn infant (Case 1). Note enormous enlargement of kidneys and numerous minute cysts visible through capsule. The bladder (opened) is of normal size. The liver, stomach, heart, and lungs are displaced upward by the kidneys. The liver is free of gross abnormality.

mary cell injury involving cell-competence presupposes some interruption of organizer function.

For the purposes of this discussion malformations may be tentatively grouped into two principal types, those resulting from defective cell potencies (lack of cell competence to undergo differentiation) and those resulting from imperfections in the mechanism of differentiation by means of organizers. In the former the malformation is essentially an aplasia and arises from a primary defect or injury in the formative cells; in the latter the primary fault lies in the integrating mechanisms.

Malformations arising from faulty organizer mechanisms may, in turn, be grouped into two morphologic types: (a) anomalies of organ structure and (b) anomalies of tissue combination (hamartia). The former depend upon disturbances in the earliest stages of embryonal organization and include a variety of monster types as well as less serious defects involving anomalies of migration, rotation, fusion, or fission of body units and of individual organs or the establishment of a well-formed lumen in various ducts and hollow viscera. The latter begin, as a rule, somewhat later—i.e., after the principal structures have been formed, and present the aspect of an imperfect maturation of their cellular components together with anomalous architectural arrangements of the cells, resembling the

abnormalities of architecture of the former type but on a miniature scale. These microanomalies (hamartia, or "embryonal rests") are often marked by a certain degree of uncontrolled tumor-like overgrowth (hamartoma) due to the defect in differentiation, and take on the form of cell or tissue gigantisms, cyst formations, angiomas, and other "benign tumors" (see Fig. 5C).

Two cases of anomaly affecting the bile ducts are presented for discussion from these standpoints. The first is that of a newborn child with polycystic disease of the liver and kidneys, the second that of an infant dying at the age of 7 months of obstructive jaundice caused by complete atresia of the extrahepatic bile ducts.

Case Reports

CASE 1

The patient weighed approximately 5 pounds at birth and seemed to have a very large belly which felt hard. On examination eight days after birth both kidneys were palpated as markedly enlarged firm masses. Intravenous urography with skiodan failed to visualize the kidneys. The infant was totally anuric despite an abundant intake of fluid, and soon developed generalized edema. Moderate azotemia was present. Death occurred two weeks after birth.

The clinical diagnosis of polycystic disease of the kidneys was made on the basis of these findings and on the additional history that the child's mother had been subjected to removal of one kidney and part of the other kidney thirteen years previously, shortly after her first pregnancy.

Autopsy Findings.—The subject was a white female infant exhibiting pitting edema of the trunk, labia, and lower extremities. Ascites was present.

Kidneys: Both kidneys were enormously enlarged, displacing the intestines toward the midline and elevating the diaphragm and liver (Fig. 1). They were of normal shape and exhibited the usual fetal lobulations. Their outer surface, which was smooth, had a foamy appearance caused by the presence of innumerable tiny cysts. When sectioned, the kidneys presented a dripping cut surface and became very flabby. Cortex and medulla could be differentiated vaguely on cut section, but the medullary rays could barely be recognized. The papillae were rudimentary and failed to project beyond the surrounding pelvic mucosa into the cavity of the pelvis. The pelvis were enlarged in proportion to the kidneys as a whole, but were smooth and devoid of true calices as a result of the aplasia of the papillae. The pelvic mucosa was smooth and glistening, like the lining of a large vein. The ureteropelvic junction of each kidney presented an abrupt narrowing to the normal dimensions of the ureters. The bladder was also normal in size. Yellowish streaks of suppuration were visible in the medulla of the left kidney, as well as numerous pinhead-sized points of suppuration in its cortex. A solitary marble-sized round cyst was present in the substance of the right kidney.

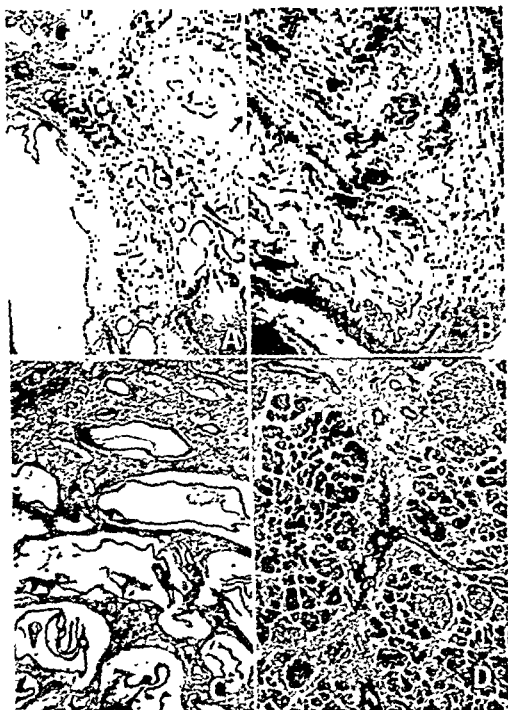


FIG. 2. A—congenital polycystic kidney. Photomicrograph showing anomalous widening of tubules and excessive amount of supporting stroma. Note also areas of rudimentary tubular development showing primitive type of epithelium. The glomeruli appear normal. B—section showing redundancy of tubular epithelium and excess of stroma. C—dilated collecting tubules showing thick-layered primitive epithelium. D—section through pancreas showing incomplete differentiation of the interlobular collecting ducts and abnormal thickness of their lining epithelium with tendency to cystic dilatation. Note immaturity of duct epithelium and acini, also excessive thickness of stroma.

Microscopically (Fig. 2, A, B, C) the kidneys were found to be composed largely of numerous widely dilated tubules lined by low cuboidal epithelium. Many appeared to have partly collapsed, resulting in buckling and desquamation of their epithelium. Scattered among these were occasional small pinkish tubular structures resembling convoluted tubules of normal or immature development and an abundance of well-formed glomeruli. The glomeruli appeared compressed and bloodless, as a result of tamponade by fluid in the glomerular space. Loops of Henle could not be identified. The dilated tubules were of varying caliber and often followed a winding tortuous course through the stroma. The latter was excessively abundant both in the cortex and in the medulla and often formed fairly compact islands containing few parenchymal elements. The stroma in general was markedly edematous, so that its cell structure was more than normally apparent and resembled embryonal mesoderm. Here and there indefinite groups of scattered primitive cells resemb-

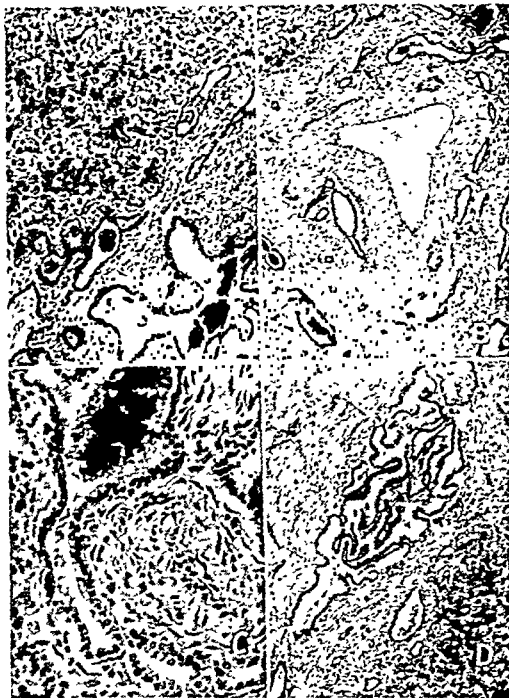


FIG. 3. A—congenital polycystic liver. Photomicrograph showing anomalous widening of intrahepatic ducts and excessive periportal connective tissue. Note profusion of anomalous ducts and numerous anastomoses. The hepatic trabeculae appear normal. B—anomalous portal field showing wide lumen of portal vein and thick surrounding connective tissue containing an abundance of anomalous ducts. C—higher magnification, showing primitive character of duct epithelium and of thickened stroma. Note inspissated bile in lumen of duct, indicating imperfect communication between smaller and larger ducts. D—larger intrahepatic duct showing wide lumen and markedly redundant lining epithelium (partly desquamated).

ling large lymphocytes or plasma cells were seen, especially near the surface of the kidneys. These groups contained no elements of recognizable architecture, and conformed to the description of nephrogenic mesenchyme.

Collecting tubules were also greatly dilated, but they exhibited less variability in caliber or shape of lumen than the convoluted tubules. Their epithelium was of somewhat greater thickness than that of the latter, and the supporting stroma was very much thicker than that of the cortex. The collecting tubules were found to converge for the most part toward the region of the papillae. However, apparently as a result of the excessive amount of medullary stroma and the minute size of these rudimentary papillae, only a small minority of the collecting tubules were found to end in the latter, the remainder ending blindly in the adjacent stroma.

The lining epithelium of the pelvis was lacking in all sections, probably as a result of antemortem desquamation. The submucosa of the pelvis was com-

posed of a thick layer of fibromuscular tissue, together with blood vessels, nerves, and lymphatics, and contained a few scattered aberrant tubules.

Many of the dilated tubules in the left kidney were seen to be filled with a dense exudate of polymorphonuclear leukocytes, as seen in a very recent infection, but there were no evidences of previous (prenatal) inflammation.

Liver: The liver was normal in size and external appearance. The gallbladder was flaccid and contained a slight amount of mucoid colorless secretion. The extrahepatic biliary passages appeared normal. The cut surface of the liver appeared normal on gross inspection.

Microscopically, a striking abnormality in the portal fields was apparent (Fig. 3). They were conspicuous for their sharp staining, for their marked variation in size, their marked irregularity of distribution, and their histologic composition. Many were considerably exaggerated above normal in size and many others were much smaller than normal. In their location they bore no constant relation to the collecting (central) veins; many of the smaller type of portal field were seen in rather close proximity to these veins. Accordingly, it was impossible to speak of hepatic lobules as such in the conventional sense. The histologic structure of the portal fields was marked by the presence of an abnormal profusion of anomalous small bile ducts of very striking appearance. These were most numerous in the zone of contact between the portal fields and the hepatic parenchyma, where they formed a wreath along the periphery of the portal field when it was of large size. Even when the fields were small, these ducts constituted their most conspicuous element. That portion of their wall which lay against the parenchyma presented a flatter epithelium than the opposite wall lying against the connective tissue of the portal field. Many of these ducts were completely surrounded by this connective tissue and presented a rather tall cuboidal or columnar epithelium. Many of them were considerably dilated and contained rounded plugs of inspissated dark-brown bile pigment. The epithelium stained deeply and exhibited sharp smooth cell contours with small round dense nuclei. It was often possible to trace these ducts directly into the hepatic cords. The connective tissue stroma of these portal fields was unusually bulky and often of rather primitive type. It had a tendency to form cushion-like projections into the lumen of the dilated anomalous ducts. The branches of the portal vein were somewhat wider than normal and often appeared sheathed in an abnormally thick adventitia (Fig. 3B).

The central veins varied considerably in size but were otherwise normal. Their walls contained only the usual scanty amount of connective tissue and were not surrounded with abnormal bile ducts as in the case of the portal venules. The parenchymal cords surrounding the central veins had the normal radial relation to the latter even when one or more anomalous portal fields were interspersed among them.

Collecting bile ducts of the intermediate type and larger were also histologically abnormal. In general,

they were much wider than normal and presented numerous elongated ramifications and epithelial infoldings. They contained granular material and inspissated bile pigment and formed numerous junctions with many of the anomalous small bile ducts of perilobular origin.

The parenchyma of the liver appeared to be normally developed. The cytoplasm was well formed but nearly devoid of vacuoles. Kupffer cells were numerous and the sinusoids were somewhat distended in a variable manner. Bile thrombi were often present in the regions nearest the portal fields in which the bile ducts were dilated and occupied by inspissated bile pigment (Fig. 3C).

The capsule of the liver was thicker than normal and contained numerous elongated abnormal ducts skirting the margins of the underlying hepatic parenchyma (Fig. 5A). These ducts were identical in appearance with those lying in the margins of the portal fields and were often traceable into the latter where the capsular connective tissue dipped beneath the surface to become continuous with adjacent portal fields.

Pancreas: Grossly, the pancreas was normal. Microscopically (Fig. 2D), it seemed somewhat immature in development and exhibited an excess of connective tissue stroma and an incomplete differentiation of secretory acini. Many of the latter still possessed a distinct lumen continuous with that of the collecting ducts, and their cells were of small size. The lining epithelium of some of the larger ducts appeared excessive and exhibited papillary folds projecting into the lumen. Their supporting stroma seemed excessively thick. The islets of Langerhans appeared normal in number and appearance.

Spleen: Grossly and microscopically, the spleen appeared normal except for congestion and a moderate accumulation of polymorphonuclear leukocytes in the sinusoids.

Adrenals: These appeared normal grossly and histologically. Microscopically, a small accessory adrenal was discovered in close attachment to the body of the pancreas.

Gastrointestinal tract: The esophagus and stomach appeared normal. The bowel was somewhat distended with gas.

Heart: No gross or microscopic abnormality was found in the heart.

Lungs: Both lungs were congested and nearly airless. On cut surface they appeared fleshy. There was incomplete development of the fissure between the right middle and upper lobes. Histologically, a considerable degree of atelectasis was present, as well as congestion and rather marked interstitial edema. The alveolar parenchyma appeared normally developed. The bronchi also appeared normal, but in the wall of some of the bronchioles, normally devoid of cartilage, islands of cartilage were seen which were of embryonic appearance and which projected somewhat into the lumen.

Diagnosis: Congenital Polycystic Disease

- (a) Polycystic kidneys with hypoplasia of renal papillae; acute suppurative tubular nephri-

tis of left kidney; obstructive anuria with extreme interstitial edema of kidneys and generalized anasarca.

- (b) Polycystic liver with partial atresia of perilobular ducts and incomplete intrahepatic obstructive jaundice.
- (c) Slight anomalies of development of pancreas, lung, adrenal. Anomaly of renal pelves.

CASE 2

This patient was a boy of 7 months with a negative family history. His development appeared normal at birth. Increasing jaundice was first clearly remarked by his parents after his third week of life. His growth seemed unaffected and he weighed 17½ pounds when admitted to the hospital. He had had measles and otitis media but, except for jaundice, appeared well until a short time previously, when he evinced a tendency to hemorrhage. On examination he presented ecchymotic spots in his skin, evidences of recent nasal and intestinal bleeding, and hematomas of the scalp. The liver was considerably enlarged, its lower edge being felt at the level of the umbilicus. The spleen was palpable. There was distinct icterus and pallor of the skin and visible mucosae. The blood showed the following: hemoglobin, 40 per cent; erythrocytes, 2,290,000; leukocytes, 30,500, of which 48 per cent were polymorphonuclear leukocytes, 41 per cent lymphocytes, and 8 per cent monocytes. The platelets numbered 330,000. The urine contained bile but no urobilinogen. The stool was strongly positive for occult blood. The patient died three days after admission.

Autopsy Findings.—The subject was a white male infant of 7 months, well nourished and well developed, exhibiting pronounced icterus and numerous purpuric and petechial hemorrhages of the skin and subcutanea. The blood within the various organs was almost entirely in a fluid state. The situs viscerum was normal, and there was no ascites.

Liver: The liver was considerably enlarged and appeared dark olive-green. Its surface was faintly stippled with yellow. On cut section the lobules appeared large and greenish; they were somewhat paler and more granular centrally. The perilobular connective tissue appeared to be widened.

In the gallbladder groove there was noted a delicate strand of connective tissue but no recognizable vestige of the gallbladder. The common bile duct was represented similarly by a delicate fibrous cord. The hepatic ducts could not be found outside the liver nor were any bile ducts visible grossly within the liver when it was cut. The portal vein and hepatic artery appeared normal. Their branches within the liver appeared in normal proportion to each other and to the parenchyma, but they were unaccompanied by any grossly visible vestiges of bile ducts.

Microscopically, the liver exhibited a typical appearance of "biliary cirrhosis" (Fig. 4A). The portal fields were enormously widened at the expense of the parenchyma, so that many lobules appeared

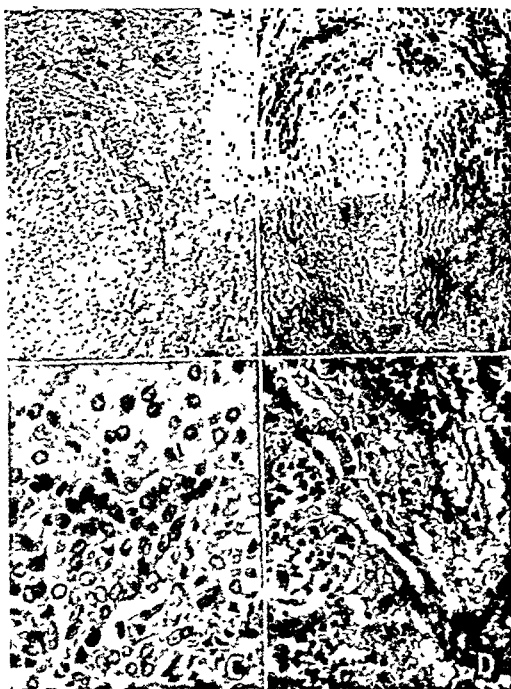


FIG. 4.—A—congenital atresia of extrahepatic bile ducts (Case 2). Photomicrograph showing biliary cirrhosis. Note numerous "bile-duct sprouts" at zone of contact of thickened periportal connective tissue and hepatic trabeculae. B—large intrahepatic bile duct showing fibrosis of wall and degeneration of lining epithelium. The lumen is filled with inspissated bile and epithelial debris. C—higher magnification, showing differentiation of perilobular ducts ("bile-duct sprouts") from hepatic trabeculae. D—differentiation in normal embryo of perilobular bile ducts from hepatic trabeculae at periphery of periportal mesenchyme (embryo of 99 mm. crown-rump length).

reduced as much as three-fourths from the normal diameter. There was much bile stasis within the lobules, which was seen in the form of brown pigment in the cytoplasm and bile thrombi in the canaliculi of the hepatic cords. The Kupffer cells were prominent, but they did not contain significant amounts of pigment.

The widening of the portal fields was caused by an excessive proliferation of connective tissue containing a great number of newly formed small perilobular ducts ("bile duct sprouts"). These ducts were particularly numerous along the margin of the lobules and could often be traced directly into the cords of the lobular parenchyma (Fig. 4C). Despite their great number they were small in size, fairly uniform in caliber, and lined by small cells of the cuboidal type with rather faintly stained cytoplasm. In all respects they resembled the "bile duct sprouts" common in other types of cirrhosis. Many of these ducts were slightly distended with rounded globules of deep brown bile pigment. The branches of the

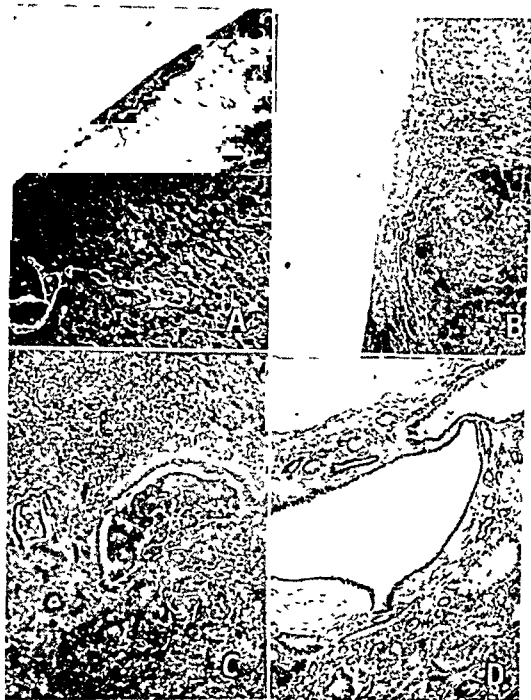


FIG. 5. A and B—relation of subcapsular connective tissue to formation of perilobular bile ducts. A—photomicrograph showing anomalous perilobular bile ducts beneath Glisson's capsule in polycystic disease (Case 1). B—perilobular ducts ("bile-duct sprouts") beneath Glisson's capsule in case of biliary cirrhosis (Case 2).

C and D—other forms of hamartial cyst of kidney. C—cystic tubules in common type of solitary hamartoma found in adult kidneys ("medullary fibroma"). The abnormal tubules are lined with thick epithelium of somewhat primitive type, and lie scattered within a mass of dense connective tissue. D—cystic anomaly of renal tubules in a case of the tuberous sclerosis complex (a form of disseminated hamartiosis). Note their irregular wide lumens, thick-layered primitive epithelium, and excessive amount of stroma. Less marked imperfections are seen in many of the neighboring tubules.

portal vein and hepatic artery exhibited no significant abnormality. The centrilobular veins were surrounded by a somewhat thickened connective tissue support, most conspicuous in the larger collecting veins, but unaccompanied by bile duct proliferation as seen in the portal fields.

The connective tissue of Glisson's capsule was considerably widened and also contained numerous "bile duct sprouts" along the margins of the lobules, although these were more numerous in the regions where the subcapsular tissue became continuous with the intrahepatic connective tissue of the portal fields (Fig. 5B).

Collecting bile ducts of large and intermediate type were present in a rudimentary form, often undergoing degeneration (Fig. 4B). In some of them

bile-stained granular material was present, filling the greatly narrowed lumen, and partly or completely replacing the lining epithelium. In others, the epithelium formed a nearly solid mass of small deeply staining cells; a minute, eccentric, irregular lumen was present in which no bile or other material was seen. Delicate channels containing bile pigment were occasionally seen in which the lining was composed of flattened, thin epithelium, and here and there these could be traced as having direct continuity with "bile duct sprouts" which had grown out from the parenchyma. In many areas the only vestige of a collecting system was a lumen containing a faintly stained round or oval mass of brownish granular material surrounded by a concentric layer of loose fibrous tissue.

Spleen: Grossly, the spleen was moderately enlarged and elongated; it was firm and scraped very little. Histologically there was seen uniform marked fibrosis of the pulp cords, with narrow sinusoids lined by hyperplastic endothelium. Malpighian follicles were surrounded by a narrow zone of congestion in which erythrophagocytosis was well marked.

Pancreas: The pancreas appeared normal. The ampulla of Vater was patent and formed the opening of the duct of Wirsung, which could be probed for a short distance into the head of the pancreas. Histologically, there were no significant changes.

Adrenals: Negative.

Lungs: Petechial hemorrhages and patchy bronchopneumonia were present.

Heart: Negative except for pallor.

Kidneys: On section there were noted pallor and moderate bile-staining. Microscopically, some of the collecting tubules were found to contain bile-stained epithelial casts.

Gastrointestinal Tract: The small intestine was somewhat distended with gas. Otherwise the findings were negative. The feces were clay-colored.

Diagnosis

Congenital atresia of extrahepatic bile ducts and gallbladder. Obstructive jaundice with secondary hemorrhagic diathesis and anemia. Biliary cirrhosis with indurative splenomegaly. Terminal bronchopneumonia.

Discussion

The development of the liver, as shown by Lewis⁷ and others,⁸ takes place by differentiation of the primitive hepatic diverticulum into two portions—a cranial portion, which becomes elongated into the hepatic duct and glandular tissue of the liver, and a caudal portion, which gives rise to the gallbladder and cystic duct. At all stages of development a continuity is maintained between the future hepatic cords and the duct system. At first this continuity is that of solid cords of cells. As differentiation proceeds, a continuity of lumen is also established. In the hepatic cords this is represented by the formation of the

bile capillaries. With the ingrowth of the branches of the portal vein, subdividing the parenchyma into lobules, a further differentiation of hepatic cords is seen, in which many of these take on the form of peribiliary ducts at the zone of contact with the periportal mesenchyme (Fig. 4D). As the liver enlarges and becomes further subdivided into many lobules, the periportal mesenchyme increases in amount, and in the peribiliary zone more and more polygonal hepatic cells become converted into the cuboidal cells of the peribiliary ducts. At the same time the earlier peribiliary ducts become surrounded completely by periportal mesenchyme and undergo still further differentiation into larger ducts with taller epithelium. The process apparently extends back to the hepatic duct proper (Bloom)^{8a}.

From the above description two facts seem particularly noteworthy from the point of view of anomaly formation. One is the primary continuity of the primitive hepatic cords with the forerunners of the extrahepatic bile ducts; the other is the apparent relation of the periportal mesenchyme to the process of differentiation of the intrahepatic bile ducts from the hepatic cords.

It may be interesting to attempt to explore the possible interpretations which may apply to the two cases just described in terms of known ontogenetic mechanisms. It is apparent that two contrasted principles are concerned: in the first case—that of polycystic liver associated with polycystic kidney—the outstanding feature was the apparent superfluity of bile duct epithelium in the liver and of tubular epithelium in the kidney associated with cystic dilatation of the lumens. In the second case the anomaly consisted in a complete aplasia of the extrahepatic bile ducts associated with secondary biliary cirrhosis. As stated previously, malformation may arise from primary defectiveness in formative cells, leading to aplasia of organ parts or body units, or from faulty integration of organizer mechanisms, leading to disturbances in differentiation of body units and of individual organs as well as to disturbances in tissue combination (hamartia).

I. Congenital Atresia of the Extrahepatic Bile Ducts

The case of congenital atresia of the extrahepatic bile ducts and gallbladder appears the simpler one to explain (Case 2). It offers a fairly clearcut example of developmental failure based on a primary suppression of embryonal induction in the case of entodermal elements intended for development into a duct system. In most instances of this anomaly the suppression of induction is relatively limited, so that only segmental

atresias or strictures occur.⁹ In the case of atresias the obstruction may sometimes be relieved surgically, permitting survival.¹⁰ In the case of incomplete obstruction intermittent jaundice with enormous cystic dilatation of the common duct results (choledochus cyst) in the course of several years.¹¹ Very few cases are on record of patients in whom the defect was as complete as in the child described here.¹²

The fact that in all the reported cases this anomaly is apparently limited to the extrahepatic portions of the biliary tree suggests that its cause is to be found in a disturbance affecting the earliest stages of development, when the hepatic diverticulum becomes differentiated into pars cystica and pars hepatica, following formation of the first hepatic cords. This assumption is particularly helpful in explaining the complete atresia of the gallbladder and extrahepatic ducts which was found in this case. The rudimentary and degenerated appearance of the intrahepatic ducts, which are derivatives of the primitive hepatic cords,¹³ has been seen likewise in many of the reported cases and has been commented on by other authors,¹⁴ who explained it either as a result of the injurious action of retained bile or as an atrophy of disuse consequent upon a diminished rate of production and compensatory accelerated disposal of bile elements into the blood.

From the facts at hand, it cannot be clearly determined whether the pathogenesis of this anomaly is based on a primary defect in the entodermal cells lining the hepatic diverticulum (defective cell-competence) or on a dysfunction of organizers. The evidence strongly favors the former interpretation inasmuch as the anomaly consists in simple failure of development, with none of the anomalous overgrowths and anachronisms of maturation seen in the latter. The cause of the anomaly is therefore probably an early postconceptional injury of the primordial cells of the extrahepatic bile ducts.*

II. Congenital Polycystic Disease of the Liver and Kidneys

In the case of the infant with polycystic disease (Case 1), the greatest interest attaches to the coincidence of the anomaly in the kidneys and in the liver. By scrutinizing closely the essential elements in the anomaly of each organ, one is enabled to draw certain conclusions regarding the basic nature of the anomaly and its possible interpretation. The association of congenital cystic liver with congenital cystic kidney is well known and has been reported in more than eighty

* Complete aplasia of the hepatic diverticulum is theoretically also possible, but it is unlikely that the resulting absence of liver tissue would permit the formation of a mature fetus.

separate publications.¹³ Moschcowitz¹⁴ collected 85 cases in 1906, all but 10 of which were associated with cystic kidneys. On the other hand, persons with cystic kidneys were found to have associated cystic disease in the liver in only 19 per cent of the cases. In rare instances cysts were also found in the pancreas,¹⁵ spleen,¹⁶ ovary,¹⁷ and lung.¹⁸ In addition, the disease is not infrequently associated with other malformations of an unrelated type—e.g., polydactylism, meningocele, spina bifida, hypospadias, anomalies of the bladder, ureters, or renal pelvis, hemicephalus, acrania with anencephaly, encephalocele, dystopia cordis, omphalocele, atresia ani, and hemangioma of the skin.¹⁹ There is, moreover, a marked hereditary tendency in its occurrence.²⁰

Certain parallelisms may be traced in the morphologic appearances of the disease when it affects the liver and the kidneys in the same individual. The involvement of the organs may be total, as in the case presented here, which is an example of the so-called infantile form of the disease. In such cases, survival is impossible because of high-grade renal insufficiency. When the involvement is partial, the function of the kidneys is preserved and the patient generally reaches adult life. Death is then brought about in the fourth or fifth decade as the end result of progressive enlargement of renal cysts, resulting in pressure atrophy of the intervening (otherwise normal) parenchyma.²⁰ Cystic liver in adults, even when very extensive, rarely causes functional impairment because of the almost unlimited capacity of the liver to regenerate; portal stasis may ensue, however, causing ascites and splenomegaly.²¹

Other parallelisms are seen in their histologic structure. The lesions in the liver and in the kidneys share a certain aspect of embryony. In the earlier stages of embryonal development these organs normally possess a mesenchymal component much greater in proportion to parenchyma than when they mature. The mesenchyme has certain characteristics of immaturity which are distinctive, including lack of compactness, larger cell body, more delicate cell processes. The epithelium likewise has distinctively embryonal characteristics, including larger nuclei, more basophilic cytoplasm, and a tendency to project in numerous folds. Cell migration is also incomplete before a certain stage. In polycystic disease all these features persist as permanent traits without further change. In the kidneys, the convoluted tubules may be immature or mature, and may end blindly in an overabundant stroma or may expand into irregular twisted cystic dilatations lined by a rather low cuboidal primitive epithelium. The glomeruli may be

normal or imperfect and may be greatly reduced in number; in many cases they are found projecting into the lumen of a cyst formed out of Bowman's capsule. The collecting tubules also exhibit a primitive aspect, being either irregularly dilated and showing papillary projections of a thick lining epithelium, or twisted and contracted within a dense stroma. The migration of the collecting tubules (derivatives of the pars ureterica) to unite with and form a continuous lumen with the tubular derivatives of the nephrogenic mesenchyme (convoluted tubules) is partly or wholly repressed as part of the abnormal fixation of development at an early embryonic level. The stroma of the kidney is proportionately much more abundant, as a rule, than normal and has an unripe appearance; often, scattered groups of dark staining cells are seen in the outer layers of the cortex as vestiges of the primitive nephrogenic mesenchyme which have failed to undergo any differentiation into glomeruli or tubules. Blood vessels may be excessive, even angiomatous in appearance, and similar changes may involve lymph vessels.²² The mechanism of cyst formation is not entirely clear and is probably not the same in all cases. Two main factors appear to be involved—overgrowth and obstruction. According to more recent views,²² the former is the basic factor, while the latter is merely adjuvant. Among the evidences in favor of the dominant role of overgrowth are the observations that the dilatations are irregular in caliber, which is suggestive of gigantism rather than the effect of simple distending pressure, and also the presence of epithelial papillary projections and the occasional occurrence of dilatations limited to the distal ends of tubules. If purely mechanical factors were involved, epithelial overgrowth, as seen in these cases, would be lacking or there would be actual epithelial atrophy. The failure of migration and of fusion of the two separately derived component elements probably explains simple retention cysts originating in the glomeruli and convoluted tubules.²³ In other cases of this type, especially in those in which the collecting tubules are also dilated, an obstruction to the outflow of urine into the renal pelvis may also be a factor.²⁴ In the case reported here, for example, the renal papillae were barely visible as a result of the inhibited differentiation of the parenchyma into cortex and medulla; as a result of this and the excessive amount of medullary stroma there followed an excessive crowding of the collecting tubules converging toward the tips of these rudimentary papillae so that relatively few of these tubules achieved actual penetration into the pelvis. In addition there was a particularly marked condensation of the superfluous stroma in the same region, so

that many tubules ended blindly there or appeared disconnected from the remainder of the parenchyma in the form of aberrant ducts. The anomalous enlargement of the pelvis was probably an incidental malformation, independent of the cystic anomaly *per se*.

In the liver the immaturity of development was exhibited in several forms. The hepatic cord trabeculae themselves appeared essentially normal. The anomaly of development affected primarily the development of the perilobular ducts and their downward prolongations in the form of intrahepatic collecting ducts. It was shown by Lewis⁷ that the smallest bile ducts (perilobular ducts) normally arise from the hepatic cords aligned along the outer surface of the periportal mesenchyme. Within these cords a lumen is observed and soon afterward the ducts thus formed become surrounded with mesenchyme and develop cuboidal or columnar epithelium of distinctive type. The hepatic trabeculae are seen to connect freely with these ducts. These perilobular ducts intercommunicate, forming a plexus, but with the further growth of the liver the anastomoses normally become less numerous. The differentiation of the perilobular ducts out of the mass of hepatic trabeculae is recorded by Lewis as first occurring in the 22.8 mm. embryo.

Two elements in differentiation normally distinguish these perilobular ducts. They are seen to arise in the hepatic trabeculae,^{13a} and they arise only in relation to the mesenchyme surrounding the branches of the portal vein²⁵ or in Glisson's capsule. In the case of polycystic liver described here, these ducts exhibited a great multiplicity in number similar to that seen in early embryonic life and also numerous anastomoses with one another. They were often grotesquely large, yet the enlargement was due only in small measure to simple retention resulting from obstruction (retention cysts), being primarily the result of irregular overgrowth (gigantism), which gave them also a many-branched appearance. They could be traced directly into the hepatic cords. They were lined by low cuboidal epithelium where they lay against the parenchyma, and were lined by high cuboidal epithelium where they made contact with the periportal connective tissue. (This differential in height of epithelium was recorded also in the normal embryo by Lewis.) The abundance of mesenchyme of normal early fetal life was reproduced in this case on a somewhat magnified scale in the form of an abnormally thick connective tissue in the portal fields which in many areas formed bulbous projections into the lumen of the anomalous ducts. Branches of the portal vein were numerous and were of large caliber. The elements de-

rived from the perilobular ducts also shared in the permanent fixation of differentiation at a primitive level. This took the form of dilated and ramifying collecting bile ducts with numerous infoldings of their lining epithelium surrounded by a dense wide mantle of connective tissue. It was further noted that the anomalous portal fields not only varied greatly in size but were totally irregular in distribution. Nonetheless, these two variables bore a certain relation to each other, so that the distribution of the portal blood was roughly uniform throughout the liver. This irregular dichotomy of the portal vein pattern within the liver must therefore be counted among the elements making up the anomaly in this case.

III. The Periportal Mesenchyme as an Organizer for the Intrahepatic Bile Ducts

The aforementioned researches of Lewis,⁷ Bloom,⁸ and others on the development of the perilobular ducts in the embryo leave no doubt that their formation is bound up anatomically with the mesenchyme surrounding the portal vein and its branches. These observations, together with certain features of the two cases recorded here, suggest the interesting possibility that the connective tissue of the portal fields is the actual source of an organizer which governs the differentiation of intrahepatic bile ducts. With the periportal connective tissue should be included the subcapsular connective tissue (Glisson's capsule), which is anatomically continuous with it and with which it has a common embryonic origin in the septum transversum. In the case of polycystic disease, the profusion of abnormal perilobular ducts has already been described in some detail in relation to the periportal connective tissue. Attention has also been drawn to the numerous anomalous ducts which were found in the subcapsular connective tissue in sections taken through the surface of the liver (Fig. 5A). On the other hand, centrolobular and collecting veins, which arise independently of the periportal and subcapsular connective tissue, were never found associated with these anomalous ducts.

Since regeneration of tissue in postnatal life involves not only a proliferation of cells but also involves their maturation and architectural conformity in the pre-existing "organization field," it is a fair assumption that organizer activity is the controlling factor.²⁶ According to this viewpoint, differentiation by means of organizer induction in the embryo represents only the initial phase of a biologic mechanism governing cell integration in the whole organism throughout life.

With this in mind, it is not surprising that the regeneration of bile ducts in diseases of the liver

separate publications.¹³ Moschcowitz¹⁴ collected 85 cases in 1906, all but 10 of which were associated with cystic kidneys. On the other hand, persons with cystic kidneys were found to have associated cystic disease in the liver in only 19 per cent of the cases. In rare instances cysts were also found in the pancreas,¹⁵ spleen,¹⁶ ovary,¹⁷ and lung.¹⁸ In addition, the disease is not infrequently associated with other malformations of an unrelated type—e.g., polydactylism, meningocele, spina bifida, hypospadias, anomalies of the bladder, ureters, or renal pelves, hemicephalus, acrania with anencephaly, encephalocele, dystopia cordis, omphalocele, atresia ani, and hemangioma of the skin.¹⁹ There is, moreover, a marked heredofamilial tendency in its occurrence.²⁰

Certain parallelisms may be traced in the morphologic appearances of the disease when it affects the liver and the kidneys in the same individual. The involvement of the organs may be total, as in the case presented here, which is an example of the so-called infantile form of the disease. In such cases, survival is impossible because of high-grade renal insufficiency. When the involvement is partial, the function of the kidneys is preserved and the patient generally reaches adult life. Death is then brought about in the fourth or fifth decade as the end result of progressive enlargement of renal cysts, resulting in pressure atrophy of the intervening (otherwise normal) parenchyma.²⁰ Cystic liver in adults, even when very extensive, rarely causes functional impairment because of the almost unlimited capacity of the liver to regenerate; portal stasis may ensue, however, causing ascites and splenomegaly.²¹

Other parallelisms are seen in their histologic structure. The lesions in the liver and in the kidneys share a certain aspect of embryony. In the earlier stages of embryonal development these organs normally possess a mesenchymal component much greater in proportion to parenchyma than when they mature. The mesenchyme has certain characteristics of immaturity which are distinctive, including lack of compactness, larger cell body, more delicate cell processes. The epithelium likewise has distinctively embryonal characteristics, including larger nuclei, more basophilic cytoplasm, and a tendency to project in numerous folds. Cell migration is also incomplete before a certain stage. In polycystic disease all these features persist as permanent traits without further change. In the kidneys, the convoluted tubules may be immature or mature, and may end blindly in an overabundant stroma or may expand into irregular twisted cystic dilatations lined by a rather low cuboidal primitive epithelium. The glomeruli may be

normal or imperfect and may be greatly reduced in number; in many cases they are found projecting into the lumen of a cyst formed out of Bowman's capsule. The collecting tubules also exhibit a primitive aspect, being either irregularly dilated and showing papillary projections of a thick lining epithelium, or twisted and contracted within a dense stroma. The migration of the collecting tubules (derivatives of the *pars ureterica*) to unite with and form a continuous lumen with the tubular derivatives of the nephrogenic mesenchyme (convoluted tubules) is partly or wholly repressed as part of the abnormal fixation of development at an early embryonic level. The stroma of the kidney is proportionately much more abundant, as a rule, than normal and has an unripe appearance; often, scattered groups of dark staining cells are seen in the outer layers of the cortex as vestiges of the primitive nephrogenic mesenchyme which have failed to undergo any differentiation into glomeruli or tubules. Blood vessels may be excessive, even angiomatous in appearance, and similar changes may involve lymph vessels.²² The mechanism of cyst formation is not entirely clear and is probably not the same in all cases. Two main factors appear to be involved—overgrowth and obstruction. According to more recent views,²² the former is the basic factor, while the latter is merely adjuvant. Among the evidences in favor of the dominant role of overgrowth are the observations that the dilatations are irregular in caliber, which is suggestive of gigantism rather than the effect of simple distending pressure, and also the presence of epithelial papillary projections and the occasional occurrence of dilatations limited to the distal ends of tubules. If purely mechanical factors were involved, epithelial overgrowth, as seen in these cases, would be lacking or there would be actual epithelial atrophy. The failure of migration and of fusion of the two separately derived component elements probably explains simple retention cysts originating in the glomeruli and convoluted tubules.²³ In other cases of this type, especially in those in which the collecting tubules are also dilated, an obstruction to the outflow of urine into the renal pelvis may also be a factor.²⁴ In the case reported here, for example, the renal papillae were barely visible as a result of the inhibited differentiation of the parenchyma into cortex and medulla; as a result of this and the excessive amount of medullary stroma there followed an excessive crowding of the collecting tubules converging toward the tips of these rudimentary papillae so that relatively few of these tubules achieved actual penetration into the pelvis. In addition there was a particularly marked condensation of the superfluous stroma in the same region, so

the diffuse manner in which the disorder affects the kidney or liver, its predilection for these organs specifically, and its heredofamilial occurrence. The last point involves of necessity a genic abnormality. The determiners of the disease may therefore be said to be inherent in the germ plasm before conception takes place and to become activated in a wide manner in the course of embryonal development at a selectively predetermined stage of development which is identical in all cases. The ultimate cause of such abnormalities of the germ plasm lies within the domain of the geneticist, and is probably to be explained in terms of mutation. In this connection it is of interest that numerous mutations have been produced in laboratory animals by means of treatment with x-rays. Bagg,³⁰ for instance, has shown that hereditary abnormalities of the viscera are to be found in the third and subsequent generations of the descendants of irradiated mice. The defects involve mainly the kidneys—e.g., partial or nearly complete atrophy of one or both kidneys, congenital hydronephrosis, and polycystic kidneys. Associated abnormalities are also found, including blindness and various defects of the limbs (syndactylism, polydactylism, club feet). These defects are definitely inherited, being recessive to the normal and approaching the mendelian expectation in behavior.

A number of other diseases are known in which a heredofamilial fault exists in association with the formation of disseminated areas of hamartial and hamartomatous abnormality in several organs. One of these, the tuberous sclerosis complex, has been similarly discussed by me²⁶ with particular reference to the role of a disturbance in embryonic organizers in its causation. In this disease hamartomas are seen in the skin (adenoma sebaceum), in the brain (tuberous sclerosis), in the heart (rhabdomyoma), and in the kidney and retina. Hamartial cysts of the kidney may occur (Fig. 5D). In addition, gross malformations are frequent accompaniments, such as cleft palate, spina bifida, accessory lung, diverticulum of the heart, etc. The latter have been ascribed to the premature onset of the disorganizing factors underlying the primary disease.³¹ Therefore, this disease can be put in a new category—*disseminated hamartiosis*. Recklinghausen's neurofibromatosis belongs also in this category, as does Lindau's disease (hemangiomatous lesions of cerebellum, spinal cord, and retina; cysts of kidneys, pancreas, and liver), and possibly other syndromes.

On the basis of the diffuse hamartial nature of the anomaly in polycystic disease, its involvement of more than one organ, its heredofamilial occurrence, and the frequently associated malfor-

mations of unrelated type, it is suggested that it be classified likewise as a type of disseminated hamartiosis. Like the aforementioned diseases, its causation is probably bound up with a particular defect of embryonic organizers conditioned by an inherent abnormality within the germ plasm.

Summary

Two cases of congenital anomaly of the bile ducts are described, the first patient being a newborn child with polycystic disease of the kidneys and liver, and the second being an infant of 7 months with congenital atresia of the extrahepatic bile ducts and gallbladder. The possible embryologic mechanisms for both malformations are discussed, particularly the role of embryonic organizers. A distinction is drawn between malformations based on defective cell-competence, resulting in aplasia as in the case of atresia of the ducts, and malformations based on a disturbance in organizer action, resulting in a hamartial type of tissue anomaly. In polycystic disease the latter is manifested in the form of cyst-like gigantism of the small bile ducts and renal tubules associated with some degree of mechanical obstruction. Polycystic disease is classified as a type of disseminated hamartiosis and is based on the same dysontogenetic principles as those which underlie multiple neurofibromatosis, the tuberous sclerosis complex, and Lindau's disease.

The mesenchyme about the branches of the portal vein and beneath the capsule of the liver apparently possesses specific inductive powers as an organizer in embryonal development of the intrahepatic bile ducts and in the regeneration of the latter in postnatal life.

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should follow the same pattern as that of their original evolution in the embryo. In Case 2, in which biliary cirrhosis was present in marked degree as a result of congenital atresia of the extrahepatic bile ducts, "bile duct sprouts" were found in great profusion in the zone of contact of the periportal connective tissue with the hepatic lobules. In addition, they were found in the subcapsular connective tissue, also in considerable number (Fig. 5B). They were altogether lacking, however, in the thickened connective tissue which formed the outer support of the centrilobular and collecting veins.

IV. The Hamartial Nature of Polycystic Disease

It is doubtful from our present knowledge that a single basis for the hepatic anomaly and the renal anomaly in polycystic disease can be assigned to any known factor held by both in common. Nevertheless, it may be helpful to point out that mesenchymal abnormalities are present in both and probably cannot be disregarded in causation. In view of the importance of the mesenchyme as an organizer, not only here but in general,²⁷ this interpretation is probably more justifiable than the banal view which holds that parenchyma and stroma share in the malforming process together.

One further point deserves emphasis—the appearance of cellular hyperplasia. Many of the older authors were sufficiently impressed with the appearance of this condition to express the opinion that polycystic disease is a form of benign neoplasm (cystadenofibroma).^{19c,28a} However, hyperplasia in the sense of excessive cellular proliferation is not characteristic of the lesion, either in the kidney or in the liver. The papillary projections within the greatly dilated peribiliary ducts and convoluted tubules are best regarded as aspects of an imperfectly controlled growth of tissues, which is a process more akin to gigantism than to hyperplasia. The organizer concept makes it possible to explain both the immaturity and the gigantism of these elements on a single basis. If it is assumed that at a crucial stage of ontogenesis failure or inhibition of organizer activity occurs within certain tissues (periportal and nephrogenic mesenchyme), a corresponding failure or inhibition of differentiation may be expected. As this stage is succeeded by another, in which new organizers supersede previous ones, further differentiation passes these tissues by and they remain "stranded. . . in a condition of permanent embryonicity."²⁶ The intrinsic growth energy within the cells of the affected tissues is not diminished, however, and as a result they continue to grow. Because of their loss of competence their growth is imperfectly controlled by

organizers which normally govern differentiation and as a consequence they may continue growing until they reach an enormous size.

Defective tissue combinations of the above type, as discussed previously, can be treated in a separate category of malformation comprising a wide variety of organoid structures arising in a fault of histogenesis. These were formerly considered persistent embryonal tissues ("embryonal rests") but are more suitably designated hamartia (Albrecht).²⁹ When the defective action of organizers to which they owe their origin permits them to gain a certain degree of tumor-like bulkiness they are best classified as hamartomas. This definition should also include various types of angioma, including glomangiomas and cirroid aneurysms as well as many forms of pigmented and keratotic naevi. There is a growing tendency to regard benign tumors in general not as neoplasms but as hamartomas. The cells of a hamartoma share a common embryonal origin with those of the parent organ (in contrast to those of a "choristoma," which is presumably the result of misplaced embryonal cells) and share to some extent also in the growth and retrogression of the organ. The predisposition to malignancy of persistent embryonal remnants is an established principle (Cohnheim-Ribbert theory) and may well be traced to the defective mechanism of cell-differentiation resulting from the original organizer deficiency. Malignant tumors of this type (hamartoblastomas) also represent the so-called "transition" of benign into malignant tumor. The sequence of change from hamartia to hamartoma or to hamartoblastoma of simple or mixed type is probably not restricted to embryonic cells but may arise equally well in reserve cells of normal tissues at any period of life in the event of a defective process of regeneration.²⁶ As stated previously, one may look upon normal regeneration as being governed by tissue organizers homologous if not identical with those controlling development in the embryo. It is possible, then, to regard the fibromas, naevi, angiomas, papillomas, and similar hamartomas of older persons as identical in the principle of their origin with the hamartomas of congenital origin.

The concept of polycystic disease in the liver or in the kidney as a form of hamartoma^{29b} was the natural outcome of the dissatisfaction of pathologists with its interpretation as a simple congenital arrest of development or as an actual neoplasm. Under this classification it was possible to group the many expressions of an excessive growth tendency, epithelial and mesenchymal, along with the obvious arrest of differentiation. Among the many questions which remain to be solved, however, are those which concern

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EARL H. ADAMS, M.D., New York City

THE present emergency will make great demands upon all specialized personnel. Medical men are realizing more and more that serious changes and unusual loads are being placed upon them and that the end cannot be foreseen. We are already wondering how to make the most of our limited numbers. Many of our colleagues are now serving with the armed forces. Their way will be arduous and not always satisfying. They are under detailed regulations that allow very little in the way of personal or professional preference. We may leave them to their problems, close our own ranks, and face the special problems of the civilian population. It is my purpose in this paper to present from the accumulated neuropsychiatric experiences here and abroad some of the problems that arise in the clinical and preventive aspects of human behavior in health and disease and with reference to public morale. Time does not permit one to present an outline of neuropsychiatry or to touch upon all the ramifications in which individual physicians may have a special interest. If remarks of a general nature often seem to predominate over specific entities, it is because of the nature of the subject under consideration.

Do not suppose that we are entirely altruistic in placing these problems before you. Frankly, we are limited in numbers, we have a desperately large job, and we need your help. For the fact that we are few you may at times have been devoutly thankful. Unfortunately, the experiences of the last war showed that psychiatric casualties assumed alarming proportions. Wars produce both physical and mental traumata; and of these the latter are likely to cause the country more lasting trouble and greater expense. War neuroses tend to increase for at least twenty-five years after cessation of hostilities. We are trying by all available means to prevent those who are especially vulnerable from being subjected to the peculiar stresses and strains of warfare.

We must also consider how we may save the civilian population from similar troubles and breakdowns. In the broadest sense these are problems of morale; and this collective state of mind assumes additional importance in "total war." Practically everyone is in the front line; the enlisted man in camp and the troubled civil-

ian at home maintain contact, and the morale of the one definitely affects that of the other. Also the efficiency of the civilian approaches in importance that of the fighting man. The efficiency of the armed forces depends directly upon effective civilian support in the form of production of arms and food and maintenance of health and morale. On the efforts of the American worker depends the success of fighting men in all parts of the world.

The behavior of the civilian must therefore be efficiently marshaled and directed to common goals. To this end it is necessary to pool the resources of social institutions and available agencies dealing with human behavior. Such institutions have been exceptionally well developed in America. In addition to homes, schools, churches, hospitals, and the press and radio, the many government and private service organizations and their scope amaze visitors from abroad. Our medical clinics, for example, impress them as being large and elaborate. Our people have become dependent upon them, and are proportionately less self-reliant. Hence, such facilities are sources of strength only when properly maintained and utilized. When the available specialized personnel—sociologic or medical—is reduced, it may become necessary to devise means to cover the needs in some group fashion, as well as the more usual individual approach. New agencies are being established to meet new requirements.

Liabilities consequent upon disturbances of human emotion and behavior ought to be properly evaluated, in order that existing facilities may be kept free for the most urgent war needs, and, too, in order that a great opportunity may be fully appreciated. The press of routine duties—office, rounds, clinics—and the familiarity of daily scenes can readily blind the physician to the highly specialized and important place that he occupies in the whole picture. The National Roster and the Procurement and Assignment Service have brought to many doctors a new and somewhat surprising vista. They are realizing that they are not merely practitioners of the healing art but also that they are parental symbols in the minds of mankind. The mother reminds her child of the doctor's orders with an air of finality, assuming that the child, too, will sense that from the doctor's verdict there is no court of appeal. This role, which we utilized much more than we

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Discussion

Dr. W. S. Hammond,* *New York City*—I should like to preface my discussion of Dr. Moolten's paper with a few remarks about organizers and inducers, although the problem of organizers and inducers is such a broad and complex one that it cannot be adequately treated in the time at my disposal. In general, a great deal is known about organizers in lower vertebrates, and that knowledge is being extended to higher forms, notably the chick. The stage has been reached where the nature of the organizer substance itself is considered almost certainly lipoidal and is probably a sterol.

In controlled experiments and given circumstances, one can predict the results of organizer or inducer action with a fair degree of accuracy. That is not to say, however, that the results in lower forms can be applied dogmatically to mammals. A hypothesis may properly be formed, but its ultimate proof rests upon controlled experimental evidence.

In the case of developmental anomalies, it is interesting and instructive to apply the organizer principle as a possible explanation. Of course, some anomalies may be explained on a mechanical basis—for example, ectopic thyroid material and variations in the pattern of the great vessels arising from the arch of the aorta. Multiple congenital anomalies may result from sequential disturbances. These disturbances may be mechanical or inductive. In

some cases, however, the multiple anomalies are not necessarily related.

In development of the human liver, the intrahepatic biliary tree is derived normally from the hepatic trabeculae. These trabeculae are always in relation to the biliary duct system, and by some method, not clearly understood, these trabeculae are transformed into parts of the excretory duct system. This transformation appears to go hand in hand with the migration of the connective tissue along the portal canals.

In the two cases presented by Dr. Moolten, the outstanding features are: (1) the abnormally large number of intrahepatic ducts, some of which are cystic, containing inspissated bile, and (2) the excessive amount of embryonic areolar tissue in the portal fields and in Glisson's capsule.

By hypothesizing that the embryonic areolar tissue is an inducer which causes a transformation of hepatic trabeculae into bile ducts, an excessive growth of the areolar tissue would result in a large number of intrahepatic ducts with a reduction of hepatic parenchyma. Irregularity of this areolar overgrowth might cut some ducts off from the system, resulting in cyst formation.

This leads us naturally to the speculation that in obstructive biliary cirrhosis, peribiliary fibrosis, and atrophic cirrhosis, the primary factor is the excessive fibrosis, and the "bile duct sprouts" are formed by a transformation of the existing hepatic parenchyma. That the fibrosis is primary and not secondary to hepatic destruction seems to be supported by the fact that the appearance is the same in both cases, and yet Case 1 showed complete biliary obstruction. The adult liver certainly contains sufficient connective tissue elements of an embryonic nature to permit us to hold such a theory. This embryonic connective tissue might suddenly proliferate under the proper stimulus and give the typical picture of cirrhosis. What that stimulus may be is another question.

I would support, therefore, Dr. Moolten's conclusion that the periportal mesenchyme is the immediate causative agent in this profusion of intrahepatic ducts.

The agenesis of the gallbladder in Case 1 and complete atresia of the extrahepatic ducts is not easily explained. I would presume that the caudal portion of the hepatic diverticulum, the so-called pars cystica, failed to become differentiated, but the cause for such failure is quite obscure. It may be pointed out, however, that such agenesis is not necessarily serious—a number of mammals—e.g., elephant, camel, deer, and some rodents—normally lack a gallbladder.

In regard to the cystic kidney in Case 2, two interpretations have already been given. The "gigantism" or duplication of tubules which Dr. Moolten has reported might be due to the embryonal fibrosis. It has been shown in tissue cultures, that in the chick, embryonic mesenchyme is necessary for the formation of kidney tubules.

* By invitation

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realize, must imply a parental type of responsibility.

This we realize when we are called upon to judge, interpret, smooth out, arbitrate, console, and generally stand by at all times. If he recognizes the parental cloak, the doctor will constantly have an opportunity to dispel vicious rumors, to nip spreading fears in the bud, and to help to keep the wheels of domestic and industrial life running more smoothly. Somewhat after the Chinese fashion, he may be expected to keep people in fighting trim.

Within his own district or community he will find numerous definite channels through which he may exert a powerful influence. Defense committees, first aid instruction, selective service duties, and blood banks are merely a few of the focal points about which people can be rallied. All these opportunities are, of course, yours primarily because it is to you, not to the neuropsychiatrists, that the vast majority of patients first come with their problems. You have always handled (and will continue to handle) the majority of them.

It must be recognized that there is also good propaganda as well as bad. Public health agencies have continually carried on propaganda against various forces that are noxious to human beings. One must be aware that the constant and increasing employment of psychological warfare by the enemy is another noxious agent. The purpose of this war of nerves is, of course, to distract individuals, particularly those in positions of importance, from real dangers by implanting notions in their minds which will produce fear or feelings of guilt or doubt, will increase conflicts between groups, or will lead to widespread apathy, war weariness, or disillusionment. The literature on this subject is quite extensive and very interesting. Suffice it to say that the chief instruments employed are disquieting rumors, efforts to destroy the value of old social institutions, the production of climatic crises and terrorization. In many persons these are sufficient to precipitate neurotic illness.

Our position in the community enables us, if we so desire, to fight these forces directly. Our efforts will naturally be reinforced if we align ourselves with another "father" symbol—namely, government. We can interpret the aims of government to the individual in terms of watchful benevolence, stressing the interest of government in nutrition, education, child welfare, and justice for all. The British government found that morale was effectively supported by the implantation of the idea that it really was guarding these things for the individual.

We are even more interested, in this matter of morale, in those destructive forces which may pre-exist in the community and in the individual or may arise therein, and also we are interested in their effects on the orderly life and special productive efforts of the nation. Even during peacetime, organized clinical and mental hygiene activities merely scratched the surface. Emotional maladjustment in one form or another in adults or in children is a great source of unhappiness, inefficiency, and wasteful illness. It must necessarily be magnified by the stresses and upheaval of war.

History has shown, in a none too flattering way, that international hostilities pass through stages of development closely resembling the quarrels of children or neighborhood gangs. There is a stage of provocation merging into one of many viewpoints and much indecision. This leads, at some point, to active warfare, which if protracted will inevitably reach a stage of weariness and lagging effort. The stage of active warfare may be subdivided into a period of waiting on the part of the general population and another of active self-defense from bombing or shelling or invasion. We are still in the waiting period, and it may well serve the enemy to keep us in it for a while. This is the time of depressive ideas, bad news, and calamity-spreaders. It is with this period in mind that I shall mention more specifically the various internal destructive forces. Many of them are operative at any time, but some are markedly modified in a time of active defense. At present we are concerned with the widespread occurrence, singly or in combination, of such factors as chronic physical disabilities, established mental illness or defect, excessive fatigue, real deprivation, isolation and insecurity, conscious conflict and confusion, fear in its various forms, including anxiety, and various nervous ailments in adults and children.

The role of serious physical illness and especially of chronic illness in lowering the courage of the individual may be self-evident. In combination, however, with deprivation, worry, or confusion more serious reactions are liable to occur. Every physician knows of cases of debilitating disease, of slowly uniting fractures, of such neurologic conditions as multiple sclerosis, combined sclerosis, Parkinsonism, hemiplegias, epilepsy, of frankly psychotic individuals, and those who are neurotic invalids. He knows cases of blindness or marked deafness. He knows parents who are a problem to their children and vice versa. He can add to this list many illnesses that I have omitted. He should realize that patients who have been paroled from mental hospitals have not necessarily recovered, or may not yet have made an extramural readjust-

ment. They will need special attention. Much good can be done by anticipating possible trouble under additional stress; and the community as well as the patient may benefit by his evacuation to a less exposed area, by placement in another environment, or even by hospitalization. It is a good rule wherever possible to put your patients under treatment of some appropriate nature, even if not specific. It will occupy their attention, give a feeling of support, and permit the maintenance of contact.

Psychoses are not greatly increased in number in wartime and the types encountered are about the same. However, there is need for their more prompt removal from the community for obvious reasons. A psychosis tends to insulate the person from harsh reality. When hospitalized, a psychotic faces fewer problems than the average person outside does, and communal hospital life no doubt combats fear and anxiety. You may help many relatives by explaining this to them. Recently, Hemphill, in the *Journal of Mental Science*, presented an interesting picture of the life of mental cases in the Bristol Mental Hospital in a very heavily bombed district of England. It was apparent that some patients take little notice of sirens or other noises, and many sleep through the din of heavy gunfire. Some playful maniac patients would mimic the sirens with alarming accuracy. It may also be well to mention that the increasing employment of persons in defense industries will make it even less safe to leave depressed patients under home care.

The problem of mental defect might also unduly alarm us at this time. While our institutional capacity has never even remotely met the numbers of these persons in the community, those at large escape many of the common mental stresses and they have probably already established such states of dependency that their basic needs will be met. Another form of defect—the so-called psychopathic personality—will be considered later.

Fatigue is a symptom which in ordinary times we are likely to treat lightly, if we do not make it a diagnostic wastebasket. In the present emergency, however, so much depends on the fitness of the individual and the results of his efforts that excessive fatigue becomes a matter of prime importance. Hence, it may not be out of place to recall the associated symptoms, and to state that it occurs in acute and chronic form. The symptoms increase and change with the degree of fatigue. In its mildest form one feels tired and weak. In some persons the condition is slowly progressive with gradual diminution of working efficiency; others rather suddenly cave in. Tremor of the hands and clumsiness

develop early. There is diminished power of concentration, especially at precision work or figures, and accidents tend to increase. There are individual characteristics such as headache, backache, distress in the eyes, including scotomata, anorexia, and insomnia, and even pains in old scars or injuries. Irritability is very common. Some persons become anxious and tense, some depressed, others resentful. Underlying dissatisfactions begin to destroy cooperation. In chronic fatigue there is likely to be apathy or boredom.

We must not think that overtaking of capacity of nerve and muscle is the sole cause. The physical health must, of course, have close scrutiny. Mental factors include monotony of occupation, concern over the attitudes of others, chronic anxiety with relation to the whole war situation or the individual's own security, and chronic personal worries, frustrations, and dissatisfactions that have gone unchanged. Some persons have serious maladjustments. Lack of recreation is important and is more likely in the case of night shifts. The conditions of work—space, lighting, temperature, posture, and the prevalence of noise—need attention. Certain personality types find the responsibility of executive positions very fatiguing, and consequent defects in judgment are obviously of serious import.

In the control of fatigue we must look for these factors. The individual is primarily emotional and not merely a machine.

Real deprivation of the necessities or the accustomed comforts of life has been found in war zones to be of great importance. The British found it more disturbing to the civilian population than the blitz. The needs of the people will, of course, differ somewhat in different parts of the world and even in different localities. Doctors can definitely assist people with problems of the family diet in relation to rationing or infant feeding and with health matters and defense housing.

To many persons a weekly movie or a properly functioning radio is a necessity. A little old lady in the East End of London was quite demoralized when her church was bombed out; but she became a functioning unit again when it was arranged for her and her group to resume meetings in another location. Loss of material things is really deprivation only in proportion to the emotional attachment to them. Insecurity, from whatever cause, can be destructive and, indeed, rather contagious. When one feels insecure, efficiency lags, initiative is lost, the strength of the foe is overestimated, and, with a feeling of defeat, a search begins in the mind for a source of protection or an avenue of escape. For that individual social integration has been lost. Consequently, through the

removal of this individual and others similarly affected, the group is undermined.

Isolation is also dangerous. Most individuals must feel that they belong to some group. The degree to which strength and comfort are derived from a feeling of identification with others of our kind will vary, of course, with the personality. Morale is definitely higher in purposeful groups. This is true in civilians as well as in soldiers. At all events, the social sense must not be lost. The problem of isolation inevitably entails the concept of discipline and the degree to which a group is homogeneous. In both these respects the British civilian has an advantage over the American, and the soldier is more fortunate than the civilian. It would therefore appear to be wise at this time to foster membership in organizations that have a clear aim, a powerful emotional appeal, a congenial, homelike atmosphere, and some disciplinary elements. The problem of subversive groups will require special attention. Old organizations are better than new and untried ones. In England the value of the community air raid shelters in this respect was found to outweigh completely the dangers from the sanitary viewpoint.

Some people will seek solitude, having by preference and by habit learned to rely on their own wits. They will need special attention, since new dangers do not come within the scope of their experience. They may do better at manual activities than in social or cooperative endeavors. Special responsibilities will assist in quelling their wishes to be somewhere else. Such persons are really still attached to the family circle of childhood.

People who harbor hostility are not few and far between. Such feelings commonly exist in gentle, outwardly docile persons. They will surprise you if you draw out their feelings of aggression; and such feelings are likely suddenly to appear as a complication during important group activities.

Conflict and confusion have already been mentioned as part of the goal of enemy propaganda. Apart from the role of unconscious conflict in the neuroses, we must appreciate the fact that conscious ideas of a conflicting or confused nature will delay decisions and action. Latent dissatisfactions will be awakened. Leadership is urgently needed, but if it is very hesitant or clearly shows incompetence, it is worse than none in poorly disciplined circles. People write angry letters about the faults of certain air raid wardens. They are critical of misplaced authority, while anxious to be told exactly what to do. Again the parental role of the physician is useful. When people lose control, they look for a scapegoat. Thus excessive hate and anger reactions

are seen directed against the President of the United States and others in authority. Such reactions may become intensely destructive. Cases of pathologic hate and paranoia should be spotted and isolated as rapidly as possible.

Fear, like heat regulation and other natural defenses of the organism, has constructive and destructive potentialities. It is the conscious emotional accompaniment of a reflex visceral and somatic protective mechanism, designed to marshal the extra wherewithal to meet danger. It enables us to fight or run away "to fight another day." The more rapidly the reflex activity is permitted to take place, the less the subjective experience of fear. Unfortunately, modern bombing attacks do not permit civilians to retaliate individually. There are clear indications that the antidote for the emotion of fear is activity. Everyone experiences fear. It is quite senseless to tell a person not to be afraid. He is already afraid that he will show fear. Do not suggest that he will be afraid, but instead mention what we all will do when we are afraid. The enemy hopes to make our fear paralyzing or destructive. He hopes it will go on to panic. In order that activity can be started as early as possible one should plan for it before the emergency. The best defense is offense.

Everyone must have a job. What kind of jobs can be done under certain conditions? Ask oneself what one would wish to have in the way of a task while under suspense, in a blackout, during the fall of demolition bombs? Some prefer manual tasks, others group discussion, still others must move about. Tasks should be appropriate and well understood. We should not have to wonder whether we are competent to do the job, when we are at the same time apprehensive of the safety of ourselves and others. Encourage adults to take some part in community defense, production, or combatant efforts. But remind mothers and guardians of the care of their children.

Panic is a profound fear reaction, in which a person loses self-control and tends to react in a primitive or disorganized manner. Like fright, it contains elements of surprise and unpreparedness. It is strangely contagious in groups.

Anxiety, or anxious apprehension, is aroused by some indefinite, not experienced or little-understood threat. It is a low-grade persistent fear, deriving its true force from conflicts within the individual, with consequent inhibition. To most persons the prospect of an air raid is indefinite and usually not understood. One cannot fully evaluate or prepare for it. Those who are prone to experience anxiety will readily call up in imagination their previous reactions, not always with satisfaction.

Anxiety is such a destroyer of efficiency and morale that its nature should be well understood. We are all inclined to be anxious about raids, about the safety of schools, about transportation, about loved ones who are away. We dread separation from those upon whom we are dependent. These things are inevitable under war conditions. Darkness and the weather may add to anxiety. It will be seen that all degrees of this condition may exist. If, however, the dread cannot be overcome by activity and tends to immobilize or incapacitate the individual, we must recognize that there is an underlying personal problem that needs solution. Anxiety combines readily with other factors.

Pathologic anxiety means unconscious conflict. This situation is basic in the so-called psychoneuroses. To conflicts already present, actual conditions of warfare or the new problems of civilian life add another—namely, a conflict between acquired social attitudes of loyalty, honor, and manliness on the one hand and the instinct of self-preservation on the other. Pathologic degrees of anxiety, anxiety neuroses, and anxiety states constitute the largest group among the psychoneuroses. Such cases will not make "good soldiers," whether enlisted or not. We should try to recognize these states and distinguish between degrees of severity and duration. They illustrate beautifully the value of a good medical history. They also point out the complex relations that exist between mind and body.

Anxiety has a tendency to show this psychosomatic relationship in numerous physical symptoms with or without psychic symptoms. Characteristic presenting signs are tremor, sweating, and tachycardia. Complaints include insomnia and bad dreams, "heart trouble," vomiting, diarrhea, polyuria. Others have difficulty in breathing. The psychic symptoms are largely fearful—fear of insanity, death, or impending disaster. In many cases protection is obtained from some of the anxiety-producing situations by phobias involving closed spaces, various forms of transportation, or crowds. Thus, by avoiding such situations, the patient may keep at work, but the total social life must be impaired, and new restrictions, rationing, etc., must bring this person more and more to incapacitating anxiety. When the patient is comfortable, between characteristic attacks, the physical signs may not be at all suggestive. For this reason the history becomes most important. The longer the patient is induced to talk about his relations with the family and others, the more evidence will accumulate of past anxiety symptoms. Vague gastrointestinal complaints or peptic ulcer in the history are reasons for suspicion.

Once recognized, how should anxiety states be handled? The question is not should you use psychotherapy, but instead it is to what extent you should use it and in what cases. Treatment really begins at the moment of first contact, and it will always be beneficial to permit the patient to state the complaints in detailed story form. Some unburdening of the mind is always helpful. Whether one should permit this process to go on extensively or not will have to be carefully considered. In very young persons, or when external circumstances may be readily altered with benefit, one may at this point decide to give appropriate medication and reassurance. The latter, however, like mental catharsis, should be timed and controlled. It is well to realize that when we tell a patient that he has no physical disease and that his symptoms are due to something else, the symptoms and the "something else" are still with him. If you are not prepared to cover this unknown in such a manner that the patient will be benefited, it is often well to introduce symptomatic treatment and the more indirect assurance to be obtained from repeated examinations, while special assistance is being arranged. It is important that the patient be receptive to your ideas of treatment. If so, almost anything you may do will have suggestive therapeutic value. Patients should not be told that crying will upset them. It may upset the ward, the office, or you, but uncontrolled weeping will usually subside in isolation.

There are numerous other forms of nervousness indicative of unadjusted personality problems. A group of rather mild cases will be found to be due to an essential instability in which heredity plays a part. Such patients under strain or disappointment or dread react excessively but most often in ways that cannot be called pathologic. In some the vegetative nervous system is easily disturbed. Some have allergies of specific type; some are rather allergic to life situations.

Hysteria, whether it be manifested by conversion of a problem into such disturbed body functions as partial paralysis, anesthesia, tremor, convulsions, or blindness, or by such dissociated phenomena as amnesia or somnambulism, presents a need for immediate handling. A cure will probably be a highly specialized job. Mild reactions respond to forceful suggestion—how forceful is left to your discretion. It is generally understood and agreed that therapy should be started at the earliest possible moment, and that if possible the patient be made to tell all the details surrounding the onset before these facts have faded from memory and in the hope of preventing a certain fixation of the symptomatic pattern. Such patients should be isolated for

purposes of therapy and to avoid deleterious effects upon others.

Other psychoneuroses and milder forms of nervousness are much less likely to constitute destructive elements in morale. Some common ones, I shall, from this point of view, not even mention. Neurasthenia is characterized by excessive fatigue without definite relation to activity, and feelings of pressure or tension, mounting to actual pain, in the head, the nape of the neck, and the spine. Mental concentration is impaired. I shall not burden you with the details of what the patient is trying to do by means of this crippling reaction. Where doctors fail to assist the patient back to activity, such a patient is likely to move out of danger zones. This is an instance where fatigue is subjectively advantageous, since it lowers the susceptibility to noise and other outside stimuli.

We should be constantly on the alert for hidden depressions of serious character. Some are masked by physical complaints.

In the treatment of nervousness, it is a general rule that somatic symptoms begin to improve as soon as new emotional outlets have been provided. Many common outlets will occur to you; other cases will demand a specialist's approach. But the importance of activity must be emphasized. The role of the onlooker does not suit these patients. "Help yourself by helping others" is a good motto.

We are often surprised at the prevalent failure of doctors to recognize psychopathic personalities, or, as they were once called, constitutional psychopathic inferiors. Doctors fail to distinguish them from psychoneurotics. The issue is important enough, because of the asocial or anti-social attitude and behavior of psychopaths, and because one can waste much valuable time trying to treat them. Usually they seek out a doctor only when physically ill or when trying to escape from the consequences of their acts. Their history contrasts strikingly with that of neurotics. They are usually quite intelligent, but have little social progress to show for it—many jobs and few promotions. Misdemeanors, truancy, divorce, desertion, drugs or alcohol are commonly found, as is the story of unusual sex experience. These things contrast with the good school, work, and moral records of the neurotic, whose background is likely to include other cases in the family, a broken home, frequent minor operations, overconscientiousness, anxiety, and a realization of shortcomings.

I have been referring, so far, chiefly to these problems as they are manifested in adults. The emotional welfare of children under war conditions has naturally received much attention everywhere. Stress has been placed on funda-

mental needs, the detection of early signs of trouble with a view to prevention, the common behavior problems and their management. Very good pamphlets, such as that produced by the Child Study Association, are available on various phases of the subject, and these are worthwhile to doctors as well as to parents or guardians. It is impossible to measure the extent and ramifications of the catastrophe that war brings to childhood. Not only is the mental state of the child of importance to its own present and future but also in relation to the anxiety aroused in parents, the extra load placed upon teachers by problems demanding attention at the worst possible time, and the tendency of serious behavior problems to overload public agencies.

We must make every effort to shield children from certain forces to which they are peculiarly susceptible. Their fundamental needs—food, shelter, clothing, medical attention, and security—must be met. Safety sometimes demands their evacuation from danger zones. In such cases children under five years of age should not be separated from their mothers. The chief need is a feeling of security, and this is much more emotional than physical. This was given further demonstration in the evacuation programs in England, where it was found that adjustment to new placement situations depended on the feeling of security. Small children adjusted well if the mother or some member of the family remained with them a few days in the new setting. They are very adaptable if given more time to adjust. Haphazard placement did not work. Individual child study was found to be extremely important. Each child has built up its own emotional needs. The welfare of a rag doll may be to the child of prime consequence in the matter of its own peace of mind.

In the preschool and school ages, security depends in large measure upon the behavior and attitude of the adults. Doctors must stress to parents the importance of a cool, matter-of-fact manner and attitude toward events in the presence of children. If one cannot be calm one must keep away from children. It also is dangerous to lie to them.

Older children need useful tasks as well as proper leadership. Britain goes so far as to explain the war news to children over the radio daily, so they will not feel that they are being kept in the dark. Adolescents must be employed to avoid asocial trends. This will be enhanced by special emphasis upon athletics.

The doctor will do well to center his whole approach to these problems of children upon the parent. He will achieve the most good by answering as definitely as he can the questions and problems of the mother.

In the period referred to as that of active service, problems will involve chiefly the basic needs of food, shelter, and clothing, disruption of services, emergency medical and casualty work. Real needs will take the center of the stage. People then find out for themselves how brave they are. Others evacuate themselves to safer areas. Remember that action for which we have been well prepared will most often remove tension and anxiety. In fact, anxiety states will diminish in prominence, while hysteria and traumatic neuroses will increase. In London under active defense conditions, fear gradually changed to annoyance, which can more readily be shared with others.

In this necessarily sketchy and obviously incomplete presentation I have tried to point out

that the opportunity is large, that the responsibility will bear down on us all. I have emphasized the types of problems which may tax you most severely. Many will be much less complex. In fact, in many cases you will already be forewarned and, indeed, forearmed by your knowledge of the patient and his life situation. I have said that these people come to you before they would even think of coming to us. The majority never need our services because the medical practitioner has so splendidly utilized the assets available to him. He will continue to do so with the same traditional indefatigability and courage.

30 East 76th Street
New York City

CONSERVATION OF EYESIGHT IN INDUSTRY

Recognized methods of protecting the eyesight of workers are being overlooked by industry, in contrast with the widespread provision of general safety measures, it is disclosed in a report on "Industrial Eye Efficiency in the War Program" published in the current issue of *The Sight-Saving Review*, quarterly journal of the National Society for the Prevention of Blindness.

The report, based on a study of 50 typical plants employing approximately 167,000 workers, was made by Charles P. Tolman, consulting engineer for the Society and a past-president of the National Safety Council. In making it public, the Society called attention to an estimate that at least 25 per cent of industrial workers have defective, but correctable, vision.

"Although front rank companies provide good general safety facilities, they, for the most part, appear to be unaware of the importance of eyesight in industry as a managerial responsibility," the report states. "Obviously, industrial concerns need to give much more attention to the subject of industrial vision, not only for humane reasons, but to increase production, to reduce spoilage, and to add manpower. One thing that can be done, for instance, is to provide prescription lenses to correct subnormal vision so that workers may be usefully employed in the war effort who would not otherwise be available."

Practically all of the plants investigated are carrying out faithfully most general safety procedures—such as the maintenance of first aid facilities, employment of safety supervisors, enforcement of accident prevention rules—but inadequate provision is made for protecting eyesight and improving visual conditions in the plant, according to the National Society for the Prevention of Blindness.

More than three-fourths of the plants covered by this study indicated that they make no effort to determine what visual requirements are necessary or acceptable to qualify a worker for any particular job. "This means," the report explains, "that these plants do not know how many color-blind or one-eyed men, or men with subnormal but correctable vision can be utilized. On the other hand, they

may be employing men whose vision is a hazard on the particular job. For example, a man may be working as a crane operator who has deficient 'depth perception,' and so cannot judge the height and placement of the crane load. This would make him a menace to life and property, while if assigned to another job for which his eyesight is suited, he could carry on safely and effectively."

Only 14 per cent of the plants arrange for periodic eye examination of workers who are especially exposed to hazards, according to the report. "This is a serious oversight," it states, "because some industrial eye injuries are cumulative—for example, those due to intense radiation as in welding and furnace work."

Failure to provide or require the use of prescription lenses in goggles, when needed for either safety or efficiency, was found in 42 per cent of the plants. Prescription lenses are nonshatterable, but they are ground to compensate for the visual defect of the employee.

The study disclosed that accident reports of industrial plants often fail to note the condition of the worker's eyesight or the illumination at the scene of the accident when an injury occurs. Only 22 per cent of the plants indicated the eye condition of the individual involved in an accident, and only 12 per cent mentioned the illumination at the scene of an accident. "The lack of such data," the report comments, "suggests that a much greater percentage of general accidents may be caused by bad eyesight or poor illumination, than is generally supposed."

"Eighty per cent of the plants claim to supply goggles to workers whom they consider exposed to hazards," the report states. "This figure is doubtless in excess of the fact, because some exposures are frequently not recognized. For example, some front rank plants do not consider that a lathe operator is exposed to eye injuries. Only 70 per cent of the plants fit goggles for the comfort of the workers, although safety men agree that this is essential to gain cooperation from the workers on the wearing of protective equipment; and more than a third of the plants fail to sterilize the goggles before issuing them to be worn by other workmen."

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We must make every effort to shield children from certain forces to which they are peculiarly susceptible. Their fundamental needs—food, shelter, clothing, medical attention, and security—must be met. Safety sometimes demands their evacuation from danger zones. In such cases children under five years of age should not be separated from their mothers. The chief need is a feeling of security, and this is much more emotional than physical. This was given further demonstration in the evacuation programs in England, where it was found that adjustment to new placement situations depended on the feeling of security. Small children adjusted well if the mother or some member of the family remained with them a few days in the new setting. They are very adaptable if given more time to adjust. Haphazard placement did not work. Individual child study was found to be extremely important. Each child has built up its own emotional needs. The welfare of a rag doll may be to the child of prime consequence in the matter of its own peace of mind.

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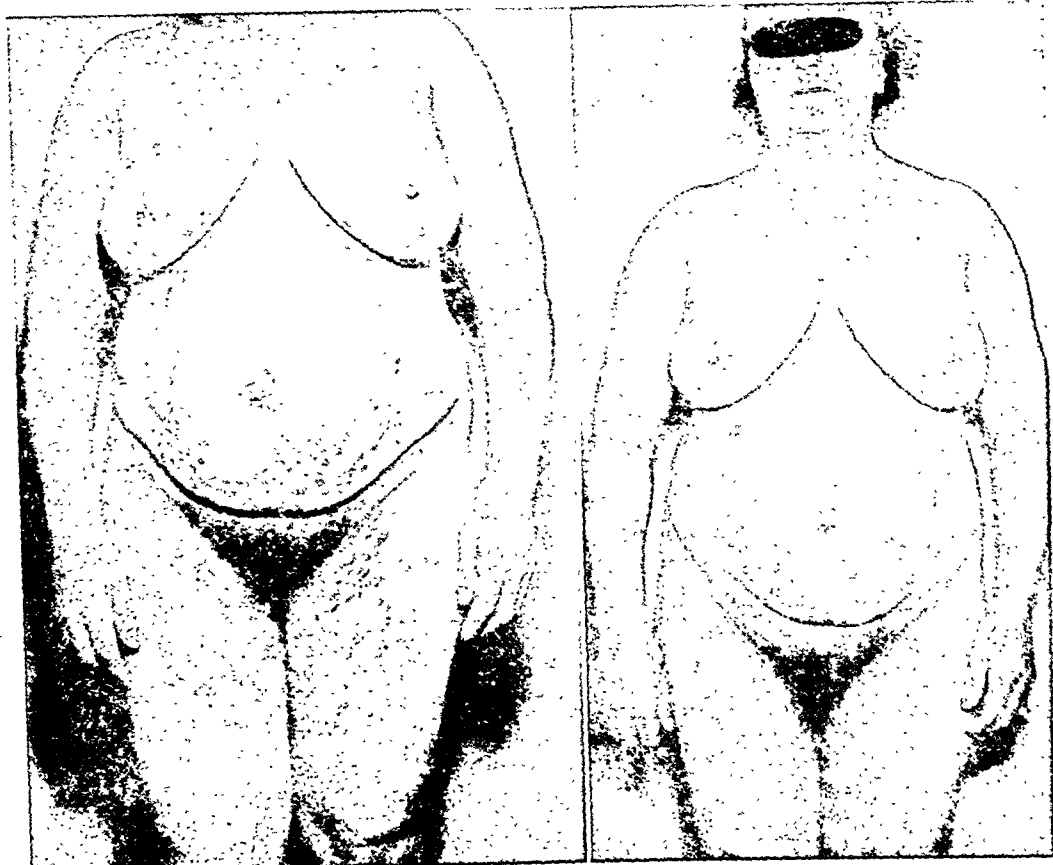


FIG. 1. (Case 3) Seborrheic dermatitis. Duration one year. Before treatment with 40 per cent sulfur in petrolatum.

FIG. 2. (Case 3) Seborrheic dermatitis two months after treatment with 40 per cent sulfur in petrolatum.

subside and also stopped the itching, burning, etc.

Acute types of infantile eczema have responded to sulfur paste, where crude coal tar has proved ineffective.

An acute eczematous eruption of the face, axillae, and pubic area occurring in a child with Hodgkin's disease disappeared with the use of sulfur paste after all other applications, including the mildest of topical remedies, had failed.

Seborrheic Dermatitis.—Sulfur concentrate paste was not utilized in the ordinary cases of seborrheic dermatitis responding to the conventional ammoniated mercury and salicylic acid ointment, sulfur ointment (10 per cent or less), or preparations containing resorcinol, betanaphthol, etc.

The sulfur paste was employed in acute seborrheids with extensive generalization of the eruption, including the genitals and intertriginous areas, where the skin was unusually irritable

and where the blandest applications could not be tolerated.

The following case reports will serve as examples:

Case Reports

Case 1.—A. A., a housewife aged 42, born in Turkey, had seborrheic dermatitis with numerous acute exacerbations for almost two years. The skin was decidedly inflamed, with fissuring of nearly all intertriginous areas. The conventional remedies produced little or no effect. Those of a soothing nature were poorly tolerated.

The 30 per cent sulfur paste was spread in the form of a thin layer on all the affected parts and rubbed into the scalp. Steady improvement followed immediately. After eight weeks of treatment the skin was of normal appearance with the exception of a small area on the back of her scalp.

An interesting experience with this patient developed during the course of treatment. Some

THE EXTERNAL USE OF 30 TO 50 PER CENT SULFUR IN PETROLATUM IN VARIOUS DERMATOSES

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ONE of the principles in the treatment of skin diseases is to apply soothing remedies to acute inflammatory dermatoses. Darier,¹ however, in discussing the treatment of eczema, states that "contrary to what might be expected, strong compound ointments such as those (of tar and sulfur . . .) are not only effective in the obstinate forms, but also in the case of acute and weeping eczemas." Dermatologists are aware of such paradoxical effects. MacKee² has had good results with 30 to 40 per cent ammoniated mercury ointment in seborrheic dermatitis of the scalp when 12 per cent failed. Chrysarobin and crude coal tar have each been applied to acute types of eczematous dermatitis, but sulfur in any strength, form, or vehicle in similar conditions has been avoided carefully for fear of dire consequences.

Sulfur

Sulfur has been employed in the external treatment of skin diseases from time immemorial. While crude brimstone and other commercial forms of sulfur contain various impurities that make them unfit for medicinal use, the native sulfur obtained within recent years is, according to Solis-Cohen,³ 99 to 99.6 per cent pure. The washed sulfur of the U.S. Pharmacopeia XI is sulfur treated with ammonia and water. It is deemed as unnecessary and the U.S.P. XII Committee of Revision proposed its deletion. Precipitated sulfur is to be retained. It is prepared from the washed sulfur by boiling with calcium hydroxide and then treating with hydrochloric acid. Precipitated sulfur is practically free of any impurities and is considered the most active of the sulfur preparations, except possibly colloidal sulfur. Sulfur volatilized by heat and deposited as a fine crystalline powder is called the "sublimed," or flowers of sulfur. This is apt to contain sulfurous acid, arsenic, and other volatile impurities and is not so desirable for therapeutic purposes as the precipitated form. Combes⁴ believes that sulfur owes its position as a therapeutic agent to the existence of certain impurities, especially the sulfurous acid, and that pure sulfur is probably inert.

Preparation and Directions for Use of 30 to 50 Per Cent Sulfur in Petrolatum.—Petrolatum, white or yellow, rubbed up with 30 or more per cent of precipitated sulfur forms a thick paste that

may be softened by levigation with a small amount of liquid petrolatum. A 50 per cent sulfur paste is frequently found to be too thick to apply. A 40 per cent paste may be preferable to a 30 per cent paste in warm weather.

The paste is spread on thin with a tongue blade. It is not to be rubbed in except on the hairy scalp. Applications may be changed one or more times daily, depending on the need. It is removed by any bland mineral or vegetable oil, followed by a soap or linit starch bath.

White or yellow petrolatum was chosen as a base for the sulfur in these studies because the anhydrous and hydrous wool fat (lanolin) may prove irritant.

Sulfur 30 to 40 per cent was suspended in a watery vehicle with the aid of either glycerin, tragacanth, bentonite, or methyl cellulose. The action of the concentrated sulfur suspension was about the same as that of the concentrated paste, but more frequent applications were necessary for sustained effect. It may be substituted for the sulfur paste if the patient so prefers.

Dermatoses That Responded to Concentrated Sulfur Paste

Pityriasis Rosea.—Pityriasis rosea is considered by some to be especially susceptible to irritation by sulfur. During a period of five or more years, a number of patients with this dermatosis were treated, at first with 30 per cent sulfur in petrolatum, later with even 40 to 50 per cent sulfur. The skin lesions involuted more rapidly, but irritation occasionally developed. This was of a passing nature, however, and further treatment with the same preparation was later well tolerated.

This treatment is not advocated for the ordinary case, which will subside in a few weeks under little or no treatment. It may be applied when the eruption is of a severe type or in those cases in which the skin condition has been present longer than the usual time and is lagging in involution in spite of the usual treatments. M. Oppenheim⁵ stated that 25 per cent sulfur ointment was the customary treatment for pityriasis rosea in Vienna.

Eczematous Dermatitis.—The sulfur paste was not indicated in contact dermatitis that responded to soothing remedies. However, when soothing applications failed to cause the eruption to involute, the sulfur paste caused the lesions to

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 28, 1942.

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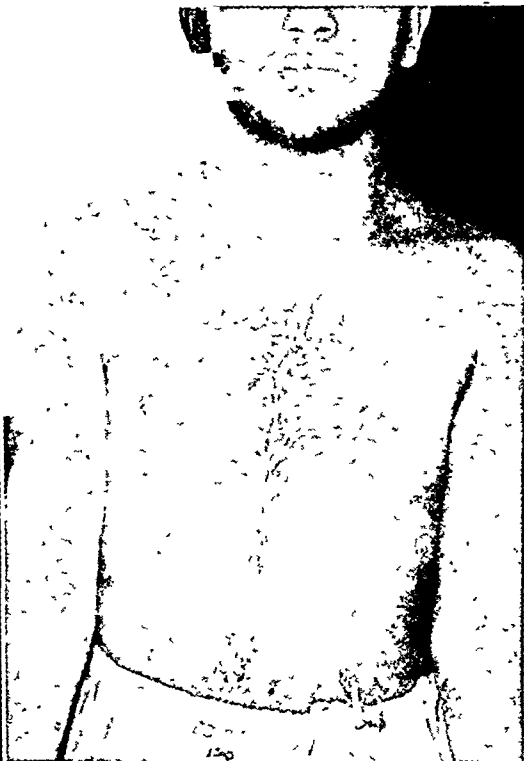


FIG. 5. (Case 6) Erythroderma psoriaticum. Before treatment with 30 and 40 per cent sulfur in petrolatum.

FIG. 6. (Case 6) Erythroderma psoriaticum. After two months' treatment with 30 to 40 per cent sulfur in petrolatum, applied to the left side of the face, trunk, and extremities. The left side of the body shows less reddening of the skin with involution of psoriasis lesions.

titis developing. In the few instances where irritation was complained of at first, it soon disappeared, either with continuation of the treatment or after a rest from treatment for several days.

Psoriasis.—The sulfur concentrate paste did not prove effective in ordinary psoriasis, or in the pustular type.

Several cases of erythroderma psoriaticum, one following injections of gold, responded to the sulfur concentrate paste sufficiently well to warrant its trial in other types of erythroderma. The following two case reports are of interest in this connection:

Case 5.—H. R., a cabinet maker aged 55, married, was born in Austria and lived in the United States about forty years. His past history was irrelevant except that he had psoriasis for about thirty years. During this period the eruption became generalized on six or seven occasions. The last episode was severe and was accompanied by an infection of the upper respiratory tract. Biopsy confirmed the diagnosis of psoriasis. The patient presented an enlarged liver and spleen with inguinal and axillary

adenopathy. The blood count indicated chronic lymphatic leukemia.

The exfoliative dermatitis was treated with a sulfur ointment (30 per cent) in petrolatum. The use of the ointment was continued for a little over three months, resulting in a disappearance of the eruption except for a few scattered scaly papules on the body. The sulfur seemed to control the itching better than the other remedies. There was no recurrence. This patient was presented by me at a meeting of the Manhattan Dermatological Society, May 9, 1939.^{6c} The patient later died from leukemia.

Case 6.—See Fig. 5. M. S., a boy aged 19, attending school, first noticed psoriasis on his scalp about two years ago. Since then the eruption has spread to other parts of his body. In the fall of 1941, he developed an erythroderma psoriaticum. Owing to the widespread extent of the eruption, he was admitted to the New York Postgraduate Hospital, Service of Dr. I. Rosen, in October, 1941. The entire body was covered with one mass of numerous papular psoriasis lesions, but here and there normal skin could be observed. Considerable redness of the skin was present. All the nails were

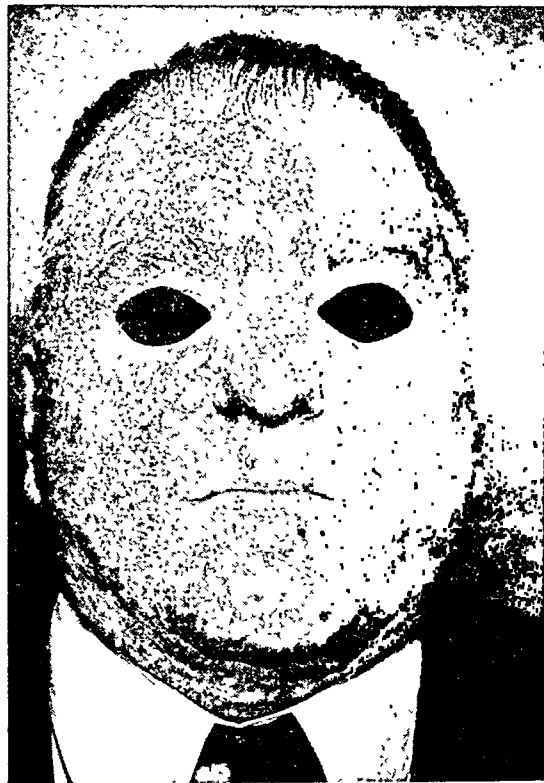


FIG. 3. (Case 4) Seborrheic dermatitis. Duration five weeks. Before treatment with 40 per cent sulfur in petrolatum.



FIG. 4. (Case 4) Seborrheic dermatitis about six weeks after treatment with 40 per cent sulfur in petrolatum.

red and scaly lesions on her neck were not receding so rapidly as other affected areas of the body. A 3 per cent ammoniated mercury together with 1 per cent salicylic acid in a petrolatum base was applied to these resistant areas. It had to be discontinued because of an immediate aggravation of the eruption. However, the use of the sulfur concentrated paste, at first with 30 per cent and then with 40 and 50 per cent sulfur, caused the eruption to subside. This patient was presented by me at a meeting of the Manhattan Dermatological Society, December 13, 1938.^{6a}

Case 2.—C. G., a woman aged 28, had a scaly erythematous eruption of two months' duration on the chest, arms, face, ears, back of neck, and scalp. Oozing was present in some areas. Examination for fungi was negative. She had used "Glover's Mange Cure," which caused an extension of the dermatitis. The use of 30 per cent sulfur in petrolatum caused immediate improvement and final cure.

Case 3.—See Figs. 1 and 2. H. S., a woman aged 51, presented extensive erythematous scaly patches, of a year's duration, on the face, chest, upper extremities, and in the groins. The patches on the trunk appeared more recently. Treatment with

various ointments had been of little avail. She was told to apply sulfur 40 per cent in petrolatum twice daily to the affected areas. As indicated in Fig. 2, the eruption disappeared after two months' treatment. Some residual pigmentation remained.

Case 4.—See Figs. 3 and 4. V. C., a man aged 40, presented a stubborn erythematous and crusted dermatitis of the entire face. There was seborrheic scaling of the scalp, with erythematous scaly papules on the chest. The eruption was of five weeks' duration before the institution of treatment with 40 per cent sulfur in petrolatum. About six weeks later most of the dermatitis had subsided and was barely visible.

These 3 patients (Cases 2, 3, and 4) were presented by me at a meeting of the New York Academy of Medicine Section of Dermatology and Syphilology, March 7, 1939.^{6b}

My first report on the use of 30 to 40 per cent sulfur paste in cases of a similar nature was made in 1939.⁷ Several dermatologists in this and other cities have employed it since then with satisfactory results. Even the delicate skin over the eyelids and genitals can tolerate the sulfur paste. There need be no fear of a severe derma-

vehicle, etc. These effects are aside from those due to the primary irritant action on the skin or those due to cutaneous hypersensitivity.

Doubling or tripling the dose of a drug for internal use produces an increased pharmacologic effect entirely out of proportion to the increase in dose.¹⁰ For instance, if the inactive threshold dose of digitoxin is 0.9 mg., and the active therapeutic dose is 1 mg., then the effect from 2 mg. of this drug is as follows:

$$1.0 - 0.9 = 0.1$$

$$2.0 - 0.9 = 1.1$$

In other words, the difference in action between 1 mg. and 2 mg. of digitoxin is not twice as much but eleven times (0.1 : 1.1) as much.

In the case of external remedies, it may be stated that the purely local therapeutic effect of a drug (active ingredient) in a vehicle increases with an increase in the concentration of the drug, the vehicle being the same. But this continues only up to a certain point in the concentration of the drug, beyond which no further added local effect is noted. For instance, a 10 per cent chrysarobin ointment is less than ten times as active as a 1 per cent chrysarobin ointment, other things being equal. In fact, it has been observed that a 1 per cent chrysarobin ointment may be just as effective (in psoriasis) as the higher concentrations. The action of local remedies, therefore, is dependent on many different factors, some of which need further clarification.

A number of our own treated patients have been patch-tested with 5, 10, 20, and 30 per cent sulfur in petrolatum. An erythematous papular reaction of the skin occasionally developed after contact for two days, over the area of the weaker sulfur pastes, but not from the 30 per cent paste. Several patients who presented a dermatitis from some sulfur ointment obtained elsewhere were able to use a 30 or more per cent sulfur in petrolatum.

It may be argued that in using a concentrated sulfur paste, an effect resembling that of a bland powder is obtained, owing to the compact physical state of the preparation. That some sulfur action takes place is indicated clinically by the antiscabetic effect of the sulfur paste. The activity of sulfur in the sulfur paste has been further verified in the following way:

Five silver coins (dimes) with markings almost gone, were placed separately face down in contact with 3 per cent, 5 per cent, 10 per cent, 20 per cent, and 30 per cent sulfur in petrolatum in separate covered ointment tins. Each coin was left in the paste for about twelve hours. When removed the surface of the coin in contact with the 30 per cent sulfur showed a deep black color, the others were less black, varying with the

30% S.in Pet.



20% S.in Pet.



10% S.in Pet.



5% S.in Pet.



3% S.in Pet.



Fig. 7. The appearance of dimes after twelve hours' contact with various percentages of sulfur in petrolatum. The top coin, which was placed in 30 per cent sulfur in petrolatum, shows the heaviest deposit of sulfur.

strength of the sulfur precipitate present in the petrolatum (Fig. 7). The surface of the coins not in contact with the sulfur paste remained unchanged, showing that no sulfur reached this surface of the silver coin, even though it was exposed in the covered ointment tin. As judged by this rough chemical test,* the sulfur paste is not inert material. The 30 per cent sulfur paste shows a much larger presence of sulfur than the weaker sulfur petrolatum preparations.

The following quotation is taken from Smith's *Inorganic Chemistry*: "We do not think ordinarily of sulfur as a very active chemical substance, but this is largely due to the fact that its solid condition interferes with the attainment of close contact with the body upon which it acts. It is really very active."¹¹ The large amount of sulfur present in the concentrated sulfur paste renders it more compact. There is less close contact with the skin upon which the sulfur acts. This may account for the less irritating properties of strong sulfur preparations with little or no interference in the beneficial local therapeutic

* Suggested by Dr. H. Sharlit.

crumbly, pitted, and discolored. His general condition was good. Physical examinations revealed nothing abnormal. There was no glandular enlargement. A blood Wassermann reaction was negative. Urine analysis was normal.

The patient could not tolerate bland oils and ointments, as he complained of irritation and the skin appeared redder after such applications. Ultra-violet ray treatments were also of no avail.

A 30 per cent precipitated sulfur in petrolatum was applied first to the left arm and forearm, while a Burow emulsion was applied to other parts of the body. The patient preferred the sulfur preparation and its use was extended to the entire left side of the scalp, face, neck, trunk, and extremities. While this was done, the right side of the body was given applications of zinc oxide ointment, then zinc paste, and finally mineral oil.

The left side of the body, treated with sulfur, showed some paling of the reddened skin and beginning involution of the psoriasis lesions. There was no change on the right side of the body, which was treated with zinc oxide and zinc paste. Mineral oil made the patient uncomfortable. See Fig. 6.

Sulfur 30 per cent was then applied to both sides of the body for the remainder of the patient's stay in the hospital. A test for sulfhemoglobin in the blood was made but none was detected. The patient was discharged in December, 1941, considerably improved.

He had an aggravation of the eruption after he left the hospital, however, in spite of the use of sulfur in petrolatum.

Rosacea.—This skin affection responded nicely to the use of sulfur 30 to 40 per cent in petrolatum. It was applied in the usual manner at night and removed by washing the following morning. The general systemic measures used in rosacea were also prescribed. No irritation was observed in any of the patients treated.

Scabies.—Several cases of scabies were cured with the concentrated sulfur paste. Irritation did not develop even when the paste was applied to the skin of a 5-year-old child. There was no definite advantage, however, over the more easily applied acaricides.

Dermatoses with Partial Response to the Concentrated Paste

The sulfur paste was tried in lichen planus. The pruritus was relieved in some instances, but there was little effect on the dermatosis itself.

Impetigo and tinea circinata appeared to be benefited, but there was no special advantage in using this remedy over others.

Infectious eczematoid dermatitis and intertriginous dermatitis of fungous origin subsided to a certain point but required further etiologic treatment for final cure.

Several recalcitrant cases of sycosis vulgaris of long standing seemed to improve under treat-

ment with the sulfur paste. In other instances the results were questionable. Nevertheless, it appears worthy of further trial in this obstinate skin affection.

Dermatoses with No Response to the Concentrated Sulfur Paste

Acne Vulgaris.—A few cases of ordinary acne were subjected to the sulfur paste treatment, but it was soon abandoned. It did not control the seborrhea, the comedones, or the other lesions seen in acne vulgaris as well as sulfur and other preparations in a nonfatty vehicle.

Other Dermatoses.—The sulfur paste was tried in neurodermatitis, localized and general types, and also in the discoid type of lupus erythematosus. No particular beneficial effect was noted. Vesicular and bullous dermatoses, like herpes simplex, zoster, erythema multiforme, and pemphigus, showed in general no relief from subjective symptoms and no hastening of involution of the eruption. The sulfur paste is being tried further in these and in still different dermatoses.

Tentative Explanation of the Action of Concentrated Sulfur Paste

Most of the official preparations of sulfur ointments contain about 10 to 20 per cent of sulfur (precipitated or sublimed). Sulfur containing lotions, lotio alba N.F., magma sulfurata,³ etc., may contain anywhere from 4 to 30 per cent of various compounds of sulfur. Dermatitis has appeared from the weaker preparations in dermatoses of a chronic nature (acne, rosacea) as well as from stronger preparations. Several cases of fatal poisoning have been reported in nurslings with scabies, presumably from the external application of 10 per cent sulfur in petrolatum.⁴

The local antiparasitic effect of sulfur—that is, the precipitated sulfur—is attributed to the development of hydrogen sulfide, alkali sulfides, and sulfites when brought in contact with organic matter. Its reducing, keratoplastic, astringent, and antiphlogistic actions are accounted for also in this way.

It appears to the author that the 30 to 40 per cent sulfur in petrolatum is not only effective therapeutically in certain acute dermatoses but, paradoxically enough, is less apt to cause irritation and dermatitis than the weaker sulfur ointments. The explanation of this paradox is not an easy matter.

The local therapeutic effect of an active ingredient, even more so than in the case of drugs for internal use, is only one of several other actions possessed by the particular agent. One or the other of these pharmacologic properties may assume an ascendancy, depending on the concentration, duration and place of application,

peutically active is that in direct contact with the epidermis. Because of the density of the paste and the close proximity of each sulfur particle with the other, movement of sulfur to the surface is slower in a paste than in an ointment, thus lessening the intensity of the action.

The question will be asked, why is a paste frequently beneficial when the weaker ointment is not?

This can be answered by assuming that the keratoplastic action of sulfur is dependent upon its ability to absorb oxygen with the formation of polythionic acids, while its irritating and keratolytic effect is dependent on the basic polysulfides which are present to a greater degree under a thin ointment than under a thick paste. The keratoplastic action is therefore intensified while the irritating effect is lessened.

PHYSIOLOGY OF DELAYED PARACHUTE JUMPS

Certain hiatuses have become apparent in the available knowledge concerning the physiologic effects of free fall through the air. Additional information on this subject is now supplied by the report of an important investigation of the subject by Carlson, Ivy, and their colleagues [Quart. Bull. Northwestern Univ. M. School 16: 254 (1942)]. Their observations were made on Mr. Arthur H. Starnes, an experienced parachute jumper . . . in six free falls. These occurred through distances which ranged from 8,400 to 29,300 feet. The rate of free fall varied from an average of 112 to 158 miles an hour in the case of the lower altitudes to 171 miles an hour in the free fall from 31,400 feet above sea level . . . The maximum average rate calculated for 4.6-second intervals was about 229 miles an hour.

The heart rate during the free fall from 31,400 feet was within the normal range; this was determined by broadcast to the ground by special apparatus which picked up cardiac potentials from chest leads. The blood pressure is not significantly influenced, according to the evidence based on Mr. Starnes's reactions during fall and on studies carried out during rapid recompression in an altitude

chamber. A transient "blackout," or loss of consciousness, may occur when the rate of fall is suddenly checked by the opening of the parachute. Respiration is irregular, varying from three to fourteen respirations during the various free falls. Auditory acuity is definitely diminished during free falls; visual acuity, however, is not impaired when goggles are worn. The position of the body during a free fall is not fixed, and the body tends to wobble, twist, and spin. However, the human body can be kept nearly vertical . . . by use of an accessory "antispin" parachute. This position has certain physiologic advantages and reduces one of the hazards of parachute jumping, namely, twisting and fouling of the shroud lines of a parachute. Convincing evidence was obtained that, at least in the experienced person, mental reactions are clear and rapid during an extended free fall through the air. . . .

The principal conclusion agrees with that previously expressed by Lieut. Col. H. G. Armstrong—namely, that delayed parachute jumps are an entirely practical means of avoiding certain highly hazardous aerial situations, such as the danger of the parachutist being shot down by an unscrupulous enemy in a plane.—*J.A.M.A.*

PSYCHIATRY IN AVIATION

Generally speaking, the career of a pilot may be separated into about three periods. During the first period, extending over about four years from the time of graduation, he is carefree and flies with considerable abandon. He is less conservative and has few inhibitions. He then merges into the next period, which extends for about ten years, ranging from, say, 27 to 37. During this period he becomes more conservative. He has frequently experienced or witnessed crashes, and he has developed a more practical appraisal of his profession. He usually has acquired a family and he may be regarded as being at the peak of his profession. The next period is associated with more mature years. As the pilot grows older he incurs certain physical limitations. His domestic and social responsibilities increase and he inclines more toward administrative duties and tends to lose contact with the ever increasing advancements of the improved types of aircraft. Under these circumstances he may give up flying, or restrict his flying to a narrower field of activity. If he maintains his adjustment, he may continue for an indefinite period. Maladjustments often result in the assignment of a pilot to a type of flying duty for

which he has lost contact. He becomes conscious of his limitations and may develop an anxiety as to his ability to cope with the situation.

The keenly intelligent and analytical type of pilot is not always the best risk for the long pull. These individuals are more capable of sensing danger. . . . Undoubtedly they are subject to greater emotional response. They respond more sensitively to noise and other stimuli encountered in flying. Therefore, they require a more profound adjustment because of these facts. Age is another factor. Young men under 25 qualify more readily under flight training than do older personnel.

In conclusion, the early indications of fatigue, staleness, effort syndrome, and even aeroneurosis are often characterized by increased irritability and changes in the pilot's attitude to his work and his associates. Only trained medical personnel and flight surgeons, who know the pilots and know their habits and reactions, can detect a change at this stage. It is this early diagnosis that we must depend on for salvage of flying personnel if they are to be saved for useful flying.—*Capt. J. C. Adams, M.C., U. S. N., in U.S. Naval Medical Bulletin*

action of sulfur on the skin when the sulfur concentrate paste is used.

Summary and Conclusions

The basic principle of the rational therapy of skin diseases is to apply soothing remedies to those of an acute inflammatory nature. Strong and stimulating agents are used in obstinate and chronic dermatoses.

Precipitated sulfur, 30 to 40 per cent in petrolatum, acts effectively in acute inflammatory dermatoses that fail to respond to the conventional mild and soothing applications.

Pityriasis rosea, acute eczematous dermatitis, generalized acute seborrheids, and psoriasis of the erythrodermatous type, also rosacea, and scabies, responded favorably to the sulfur concentrated paste. Infectious eczematoid dermatitis and other eczematous parasitic dermatoses, impetigo, and sycosis vulgaris also may do well.

Other dermatoses, like acne vulgaris, neurodermatitis, lichen planus, discoid lupus erythematosus, vesicular and bullous dermatoses (herpes simplex, zoster, pemphigus), show questionable or no response to the sulfur paste.

The sulfur paste acts as an antiphlogistic, reducing, antipruritic, and antiparasitic agent.

Dermatitis, not uncommon with milder sulfur ointments, has not been observed following the use of 30 to 40 per cent sulfur in petrolatum. Irritation may appear. It is of a temporary nature and subsides with the further use of the sulfur paste.

There is less close contact of the sulfur with the skin by the use of 30 to 40 per cent sulfur in petrolatum than with weaker sulfur ointments, allowing the therapeutic action of sulfur to assume the ascendancy over the less desirable irritating effects.

As shown by actual tests, the concentrated sulfur paste is not an inert compound.

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Discussion

Dr. Frank C. Combes, *New York City*—I am sure we have all enjoyed listening to Dr. Abramowitz's interesting paper. 'Sulfur is a most remarkable element. It exists in several allotropic forms, possesses three valences, diadic, tetradic, and hexadic, occurs as electropositive and as electronegative ions, and is dispensed as flowers of sulfur, precipitated sulfur, and sublimed sulfur.'

The failure of 30 to 50 per cent sulfur pastes to irritate the skin which has previously rebelled against weaker concentrations has always intrigued me. We may not know why, but we can always theorize.

Sulfur, under favorable conditions, has the ability of combining with oxygen to form various oxides which combine with water to form polythionic acids. It also has the ability to combine with hydrogen to form hydrogen sulfide, which in turn forms hydroxides and basic sulfides. The actions of sulfur on the skin are dependent on these two series of compounds. The keratoplastic action is dependent on the ability of sulfur to absorb oxygen from the skin. Its antiscabetic action probably depends upon its ability to combine with hydrogen, since this action may be elicited by the application of the dry powder in the presence of warmth and perspiration.

Now, why will a 10 per cent sulfur ointment irritate the skin, whereas a 40 per cent ointment will not? There is no doubt that 40 per cent is potent (as Dr. Abramowitz has stated) and does not act as a bland paste. However, I do not think the result of his demonstration with the dimes is due primarily to the sulfur but rather to sulfuric acid, which is formed from oxygen taken up from the air and is present in all sublimed and precipitated sulfur as an impurity. It is doubtful whether elemental sulfur exhibits any activity until it comes in contact with the proteins of the skin, sebum, and sweat, and is changed to thionic acids.

Only two theories appeal to me as explanations of this paradox. Both probably act simultaneously. The first is dependent upon the secretion of sweat over the area on which the paste is applied. Sulfur applied to the skin causes an active dilatation of the cutaneous capillaries, edema of the rete, and activity of the sudoriparous glands. This sweat has a pH which is more alkaline than normal because of dilution of the fatty acids. Sulfur is more active in an alkaline medium. Sulfur in a paste is more absorptive, acting, by capillarity, to some degree like Lassar's paste, as a sponge, and removing this sweat from the surface. An oleagenous ointment repels it, leaving it on the surface, saturating the normally acid epidermis, enhancing the formation of alkaline sulfides which are in turn keratolytic and irritating. Elemental sulfur is also soluble in these sulfides, thus setting up a vicious cycle.

The second theory is based upon the viscosity of a paste. The only part of the sulfur which is thera-

vided that the humble institution required. Some students of medicine volunteered to perform in rotation the duty of apothecary, and the landlord from whom the rooms were rented acted as superintendent. . . . It was made publicly known that all poor persons applying at No. 45 Chatham Street on certain days and hours of each week with diseases of the eye would be gratuitously treated, and the necessary medicines and appliances furnished them.

"A single week proved that our infirmary would succeed, for immediately many poor persons, thus suffering, applied for relief, and in a short time our small apartments were crowded with them, and the labor of caring for so many proved far greater than was anticipated.

"The undertaking was commenced in the month of August, 1820, and in a period somewhat less than seven months, 436 patients had applied and received the care and treatment of the surgeons of the infirmary."⁵

The successful outcome of the experiment undertaken by the New York physicians did not fail to impress their contemporaries, as evidenced by the testimony of Dr. Edward Reynolds, co-founder with Dr. John Jeffries of the Massachusetts Eye and Ear Infirmary of Boston. In an address delivered on July 3, 1850, at the dedication of the new building of the Infirmary, Reynolds declared: "As the London Eye Infirmary owes its origin to the Institution at Vienna, so the Massachusetts Infirmary, where we are this day assembled, must claim its parentage from that.

"The valuable work of Saunders, published in 1816, and the occasional reports of the infirmary of which it was the first fruits, began to excite a spirit of inquiry among several eminent individuals in our country. But no general movement was made in its favor until 1821, when the first eye infirmary in America was established by Dr. John Kearny Rodgers and Dr. Edward Delafield, two of the most distinguished physicians and surgeons in New York, who may be called the fathers of American ophthalmology. Filled with the spirit first received at the London institution, and finding on their return from Europe a great number of poor people afflicted with diseases of the eyes, they were desirous of extending a similar blessing to their native city. Accordingly, at the request of several of the senior members of the profession, they founded the New York Eye Infirmary, where they have since labored with praiseworthy diligence, devoting to its interests a great amount of time, that was with difficulty spared from other professional pursuits, uncheered by any adequate patronage of the public, though 36,000 fellow beings have received the blessing of sight and

hearing at their hands; and reaping no other reward than the happiness of doing well.

"Two years after, in the latter part of 1824, the example was followed in Boston and the first effort was made, whose noble result we are this day assembled to celebrate."⁶

The New York Infirmary continued to be a significant factor in the development of American ophthalmology and, as will be shown later, was intimately connected with the organization of the American Ophthalmological Society. During the twenties and thirties ophthalmic hospitals and dispensaries were also founded in Philadelphia, Boston, and Baltimore, but as yet I am not prepared to state definitely whether their establishment was in any way influenced by the organization of the New York Infirmary. In 1852 another institution for diseases of the eye, the New York Ophthalmic Hospital, was opened for the indigent poor of New York City. Besides these special hospitals, ophthalmic services were also organized at various times in connection with general hospitals and general dispensaries in both New York and Brooklyn.

Although physicians devoting themselves exclusively to diseases of the eye did not appear in New York until after 1850, otology and ophthalmology were practiced together for a long time, and since both are specialties I am disregarding this combination in the discussion. There were nevertheless a number of surgeons and general practitioners during the first half of the century who paid particular attention to ophthalmic conditions and acquired considerable skill in their treatment.* Many of these men were connected with the special eye hospitals, or with general hospitals having eye services. Among them may be mentioned Valentine Mott, Gurdon Buck, Willard Parker, Alfred C. Post, Frank H. Hamilton, George C. Blackman, George Wilkes, and William C. Wallace. Important contributions to the growing body of knowledge on the eye and its diseases were made by various New York physicians and surgeons. Of these, Wallace's studies on the mechanism of visual accommodation, Post's successful blepharoplasty, and Blackman's operation for blepharospasm are perhaps among the more significant.

* An exception to this general statement is apparently to be found in the case of William Clay Wallace, of New York City, who was active during the first half of the 19th century and who styled himself "oculist."⁷ The first clear-cut case of ophthalmic specialization that I have found is that of Dr. John H. Dix of Boston. In 1843 the *Boston Medical and Surgical Journal*⁸ noted: "Dr. Dix, of Boston, advertises that in future he shall devote himself to the diseases of the eye and ear"; and in Volume 29 of the same journal, facing page 28, is to be found the following announcement: "Diseases of the Eye and Ear. Dr. J. H. Dix will, from this date, relinquish general practice, and attend exclusively to the medical and surgical treatment of Diseases of the Eye and Ear. February 14, 1843, No. 2 Bowdoin Square."

History of Medicine

NEW YORK CITY IN THE HISTORY OF AMERICAN OPHTHALMOLOGY

GEORGE ROSEN, M.D., Brooklyn

THE extensive subdivision of labor and segmentation of function, so characteristic of modern medicine, manifests itself in the existence of certain limited fields of practice known as specialties. Underlying their development is the general social process of specialization. Social scientists have subjected the principle of specialization to analysis in order to ascertain the factors involved in its operation. It was recognized that specialization is generally an aspect of social and economic systems of a certain degree of complexity and that it is intimately related to urban concentration. The appearance of the city is of the utmost importance for the development of specialized skills and activities. Adam Smith pointed out that the operation of the principle of specialization was limited by "the extent of the market."¹ Emile Durkheim formulated a principle indicating the relation between segmentation of function and population size. "The division of labor," he says, "varies in direct proportion to the volume and density of societies, and, if it progresses steadily in the course of social development, it is because societies become regularly more dense and very generally more voluminous."² The significance of these generalizations is that they provide an approach which makes it possible to investigate the development of the medical specialties not as isolated accumulations of technical knowledge, but rather as integral elements in a texture of interwoven social and scientific processes. The present study attempts to investigate the role of the city in the process of specialization by an analysis of a particular case—namely, the part played by New York City in the development of ophthalmology as a specialty in the United States.

While ophthalmology as a full-blown specialty did not make its appearance until after 1860, the factors and conditions that made possible its development may be traced back to the second decade of the century. Among the preconditions contributing to the rise of ophthalmic specialization, the existence of a number of hospitals for patients afflicted with eye diseases must be considered of prime importance. Indeed, it is an interesting and noteworthy fact that both in the United States and Great Britain

the organization of special ophthalmic institutions preceded the appearance of the ophthalmologist. These hospitals provided centers where the care and teaching of eye diseases could be cultivated and where the value of this special field of practice could be demonstrated to the medical profession.

The first ophthalmologic institution in this country was the New London Eye Infirmary established by Elisha North in 1817 at New London, Connecticut.³ This establishment ceased to exist some time around 1830 and apparently exerted no influence on the development of American ophthalmology.⁴

In 1820, however, the first permanent hospital for diseases of the eye, the present New York Eye and Ear Infirmary, was founded in New York City. The organization of this institution was the work of two young physicians, Drs. Edward Delafield and John Kearny Rodgers. The story of the founding of this hospital, which was intended to serve the poor who suffered with eye diseases, was related by Delafield in an address delivered on April 25, 1856, at the dedication of the new building of the New York Eye Infirmary. "Some time in the year 1816," he said, "two young men recent graduates in medicine of the College of Physicians and Surgeons of this city, who had spent together the previous year in the New York Hospital, one as house physician and the other as house surgeon, sailed for Europe. Their object was to improve themselves in the knowledge of the profession of their choice."

On their arrival in London they availed themselves of the instruction in the nature and treatment of eye diseases given at the London Eye Infirmary, which had recently been founded by John Saunders. The two young Americans were greatly impressed with the Infirmary and its teaching. "On their return to their country in the year 1818," relates Delafield, "the subject of diseases of the eye engaged their earnest attention, and they soon came to the resolution that they would establish in our city for the first time in America an infirmary for curing diseases of the eye. . . .

"Accordingly, two rooms were hired in the second story of a building in Chatham Street, then in a central situation, and the few articles pro-

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

the flourishing metropolis astride the mouth of the Hudson, often brought with it immigrant doctors, especially from Germany and Central Europe after the defeat of 1848. It is not implausible to suggest that these men may have helped to familiarize American physicians with the concept of the medical specialty, since segmentation of medical practice had already progressed much farther in Europe. In this connection it is worth noting that the *American Journal of Ophthalmology*, the first ophthalmologic journal to appear in America, was published in New York in 1862 by Dr. Julius Homburger, an immigrant physician from Germany who had studied with von Graefe and Sichel and who had settled in New York in 1861 to practice ophthalmology.¹⁷ Similarly, the *Archives of Ophthalmology*, which began to appear in 1869, were established by Dr. Herman Knapp, who had taught at Heidelberg and had come to New York in 1868.

Second, the growth of the port of New York and the development of transatlantic shipping lines created conditions which profoundly influenced American medicine and stimulated the growth of specialization. The facilitation of cultural change generally and the development in medical knowledge and practice specifically are contingent upon the existence of a high degree of social interaction involving a number of processes. Among these processes the direct interaction arising from face-to-face contacts and the mediate interaction produced by the transmission and circulation of theoretic and factual information are of great significance in stimulating cultural change. Improved means of travel and communication render possible or accelerate the operation of these processes. The development of the transatlantic transportation facilities brought New York and European medical centers into closer contact, and numerous physicians took advantage of this circumstance. Many of the founders of the American Ophthalmological Society went abroad to study with the leaders of ophthalmology in Europe, with Donders in Holland, with Bowman in London, Sichel and Desmarres in Paris, von Graefe in Berlin, and Arlt and Jaeger in Vienna.

In June, 1864, the American Ophthalmological Society was organized in New York.¹⁸ The formation of this society marks a decisive turning point in the development of the specialty of ophthalmology. Specialized knowledge and techniques may exist and be utilized by physicians, and yet there may be no specialty. A number of men operating within a limited field of medical practice do not constitute a specialty, which can only be said to exist when there are bonds between the practitioners, bonds which take shape

within an association based upon like interests and common problems. It is in this sense that the organization of the American Ophthalmological Society may be regarded as marking the first appearance in America of ophthalmology as a formal specialty.

The prominent role of New York City in the development of ophthalmology as a specialty is strikingly evident in the organization of this society and in its subsequent history. In his "Account of the Origin . . . of the American Ophthalmological Society," Dr. Henry D. Noyes relates: "The beginning of the American Ophthalmological Society was suggested by correspondence held by Dr. Derby, of Boston, and Drs. Noyes and Bumstead, of New York, who verbally communicated with friends likely to be interested in the subject and residing in these cities, respectively. It was resolved to bring together those who felt the need of such an organization, and the first consultation on the matter was held at the office of Dr. Henry D. Noyes at 278 Fourth Avenue in New York. . . ."¹⁹

At this meeting eight men were present. Seven of them were New Yorkers—Drs. Henry B. Sands, Herman Althof, John H. Hinton, F. J. Bumstead, D. B. St. John Roosa, W. F. Holcomb, and Henry D. Noyes. The eighth member of this group was Dr. Hasket Derby, of Boston. This meeting, which was held on January 9, 1864, was convoked in order "to consult upon the best mode of promoting the interests of ophthalmology in this country. . . . The subject of founding a journal of ophthalmology was discussed and a resolution passed unfavorable to the project. Dr. Bumstead offered a resolution that a committee be appointed to invite ophthalmic surgeons from the whole country to assemble in New York at the time of the meeting of the American Medical Association to form themselves into the American Ophthalmological Association."¹⁹ This motion was carried and a committee consisting of Drs. Bumstead, Noyes, and Derby was appointed.

The meeting of ophthalmologists called by the committee took place on June 7, 1864, at 2:30 p.m. at the New York Eye and Ear Infirmary, Second Avenue and Thirteenth Street. Among those attending were the eight who had been present at the original meeting, as well as Drs. Edward Delafield, Cornelius Rea Agnew, Francis Simrock, William F. Carmalt, and William Stimpson, of New York City; Dr. C. A. Robertson, of Poughkeepsie; Drs. John H. Dix, Joy Jeffries, and Francis B. Sprague, of Boston; and Dr. Ezra Dyer, of Philadelphia. Eighteen men interested in ophthalmology and its problems assembled at this meeting, twelve of them being New Yorkers. At this meeting also, eight new

The accomplishments of these New Yorkers and of their confreres in other large cities attracted the attention of the medical profession to the possibilities of the growing field of ophthalmology and inspired other physicians and surgeons to engage in ophthalmic work. This development was particularly marked in New York because of the influence of various economic and social conditions resulting from the growth of the city.

By 1850 New York had become the colossus of the North, having disposed of her rivals during the preceding fifty years. New York, through her location at the mouth of the Hudson, stood at the entrance to a great avenue of communication with the interior of the country, for the Mohawk Valley with the Mohawk River formed a connecting link between the Hudson and the Great Lakes. This natural advantage had been utilized in the building of the Erie Canal, which was completed in 1825. The agricultural Middle West was thus brought into contact with the highly developed industrial and urban section, to which New York was the gateway, and also with Europe. As a result, the thriving city at the mouth of the Hudson became a great distributing center, its spacious harbor accommodating ships from many lands. In 1850 New York's import trade was somewhat less than 60 per cent of that of the entire country; Philadelphia, Baltimore, Boston, and New Orleans had all been compelled to acknowledge her commercial supremacy.⁹ This was the New York which Herman Melville saw as the "insular city of the Manhattos, belted round by wharves as Indian isles by coral reefs—commerce surrounds it with her surf."¹⁰

Hand in hand with this economic development had gone a growth of population. In 1790, New York, the second largest city in the country, had a population of 33,131.¹¹ By 1840, it had increased to about 313,000, and twenty years later, it had already reached a total of more than 800,000.¹² This rapid growth was in a large measure a product of immigration, that mass movement of peoples during the nineteenth century which Hansen has called the "Atlantic Migration."¹³ During the forty years between 1820 and 1860 about 5,000,000 immigrants entered this country. The decade of the fifties witnessed the arrival of 2,700,000 "passengers of foreign birth," more than half of the previously mentioned total.¹⁴

As a result of this rapid increase of its population, New York City, like many other urban communities of this period, was soon faced with problems of housing, of overcrowding, unsanitary conditions, cellar dwellings, and high rents—in short, by the problem of the slum.

John H. Griscom in his study on the "Sanitary Condition of the Laboring Population of New York," which appeared in 1845, has left us a vivid portrayal of these conditions. Nor do the "First and Second Reports of the Metropolitan Board of Health," published some twenty years later, reveal very much improvement.¹⁵

The morbidity and mortality of a given social or occupational group are to a large extent functions of its living conditions, so that one is not surprised to find a high incidence of disease and death associated with the unsanitary and unhealthy living conditions of the poorer classes in New York. Among the diseases commonly found in this group those affecting the eye occupied a prominent position. On this point, we have the testimony of Dr. Reynolds who, in his aforementioned address, affirmed "that the poor and laboring classes are peculiarly liable to these diseases—a fact now familiar to everyone acquainted with the results of these institutions.

Whoever would study the diseases of the eyes must pass by the houses of the affluent, and enter those of the poor. The great majority of all these cases belong to the humbler ranks of society, and have their prolific parentage in the various privations and sorrows unavoidably consequent upon poverty. . . . It is the toil-worn laborer, whose fatiguing occupations must be continued in the summer's heat and the winter's cold—it is the poor foreigner who builds your railroads and repairs your docks that seek the aid of this friendly charity. A large proportion of all the accidents to which the eye is liable is to be found not in the office of the professional man or the counting house of the merchant but in the workshop of the poor but industrious mechanic."¹⁶

Although Dr. Reynolds was referring to Boston, his statements are perhaps even more applicable to New York City at the same period.

Thus, by the decade of the sixties there were already present in New York important preliminary conditions favoring the appearance of ophthalmic specialization—namely, (1) the existence of special ophthalmic institutions, (2) the presence of a group of medical men interested in diseases of the eye and trained to deal in them therapeutically, and (3) a rapidly growing urban population with a high incidence of morbidity and mortality. In addition to these factors, brief mention must be made of two circumstances which, in a sense, have been implied in the preceding discussion of the economic development of New York.

First, the ever-growing stream of immigration, which, spanning the Atlantic, emptied into

Diagnosis

CLINICOPATHOLOGIC CONFERENCES FOURTH MEDICAL DIVISION OF BELLEVUE HOSPITAL

Date: January 28, 1941

Conducted by: Dr. Harry A. Solomon

DR. CHARLOTTE T. PEIRCE: This was the third Bellevue admission of a 57-year-old Italian stonecutter who had been in excellent health except for an abdominal operation for shrapnel wound sustained in the last war. In July, 1941, he first noted a chronic nonproductive cough, exertional dyspnea, edema of feet and ankles, and swelling of the abdomen. The patient was treated at another hospital with paracentesis and diuretics and was then discharged, although he was still dyspneic. His symptoms recurred, and he was admitted to the Third Medical Division of Bellevue Hospital on October 11, 1941.* Physical examination revealed rales at the bases of both lungs; the blood pressure was 145/105; the heart was enlarged to the left; the point of maximum impulse was not felt; the heart sounds were fair, with normal sinus rhythm; A2 was greater than P2. The liver was felt down to the umbilicus, with flatness and shifting dullness in the flanks. There was 4-plus pitting edema of the extremities. A roentgenogram of the chest showed fluid at the base of the right lung and an enlarged heart, with disseminated nodular infiltration involving the major portion of both lung fields consistent with silicosis. Kymography showed abnormally diminished pulsations of the lower portion of the left ventricle, suggesting myocardial damage or enormous hypertrophy. The electrocardiogram showed normal sinus rhythm, low T waves, PR interval of 0.2 second, and no axis deviations. The blood Wassermann was negative. The erythrocyte count was 5,300,000, with 14-Gm. hemoglobin; the leukocyte count was 9,850, with 63 per cent polymorphonuclears, 18 per cent lymphocytes, and 19 per cent transitional cells. The blood non-protein nitrogen was 34 mg. per cent and the albumin-globulin ratio, 4.4/2.0 Gm. per cent. The patient was digitalized to toxicity and was given diuretics, with gradual improvement except for an episode of thrombophlebitis of the right leg. This, however, gradually subsided. Before discharge, a swelling of the left palm and palmar aspect of the left wrist were noted. A

* Permission to use this case was granted by Dr. William S. Tillet, Director, Third Medical Division, Bellevue Hospital, on which service this man had previously been a patient

week after discharge, because of a recurrence of the edema, the patient was admitted to another hospital, where findings were essentially the same. Two thoracenteses of the right side of the chest were performed, and, following redigitalization and further diuretics, he was transferred to an institution for care of the chronically ill, where he remained until ten days before his readmission to Bellevue Hospital, Third Medical Division, on March 19, 1942, for recurrence of symptoms of dyspnea, orthopnea, and edema of the extremities. Physical examination at this time showed a blood pressure of 185/80; there was no venous distention of the neck; the lungs were hyper-resonant, with diminished breath sounds. There were no rales, but there were signs of fluid at the base of the right lung. The heart was enlarged, with the point of maximum impulse 12 cm. to the left of the midsternal line, in the fifth intercostal space. The heart sounds were distant, and there were no murmurs. The liver edge was 8 cm. below the costal margin; there was no fluid wave or shifting dullness. Thickening of the left epididymis was noted. Swelling of the left wrist, chiefly of the volar aspect, with slight nodular induration under the skin, and a fusiform swelling of the fifth finger were noted. There was no fever at any time.

Laboratory Data.—Repeated sputum examinations were negative for acid-fast organisms. The erythrocyte sedimentation rate was 36 mm. per hour, and the blood count was normal. The blood nonprotein nitrogen was 30 mg. per cent; the albumin-globulin ratio was 3.9/3.0 Gm. per cent, and the icteric index, 8. The right side of the chest was tapped on March 25, 1942, with removal of 1,050 cc. of clear yellow fluid; the specific gravity was 1.014; there were 160 cells per cu. mm. Guinea-pig inoculation was negative for tuberculosis. Thoracentesis was repeated on April 8, 1942, with removal of 2,100 cc. of fluid with a specific gravity of 1.020, 480 cells per cu. mm., with 84 per cent lymphocytes and 16 per cent monocytes. No acid-fast organisms were found, and gram-stain showed gram-negative cocci in chains and clumps; a few gram-negative rods were also found. The venous pressure on admission was 260 mm., and, following diuretics and redigitalization, venous pressure dropped to 179 mm., the ether circula-

members were elected, of whom one was a New Yorker. Thus, of the twenty-six physicians who organized the American Ophthalmological Society and who were elected as members at this first meeting, thirteen, or one-half of the total number, were from New York. Furthermore, it is significant that of the thirteen New Yorkers, six were on the attending staff of the New York Eye and Ear Infirmary—Althof, Carmalt, Delafield, Du Bois, Noyes, Simrock. Four other members of the Infirmary staff became members of the Society between 1865 and 1869, but three of them resigned shortly thereafter when the aural surgeons organized the American Otological Society—Allin, Francis Delafield, Watts.²⁰

The relative preponderance of New York members persisted well into the present century. Friedenwald has analyzed the geographic distribution of the membership of the society at three different dates.²¹ In 1871 there were 52 members, half of them living in New York. In 1903 the membership totaled 164; of these 53, or 32.5 per cent, were New Yorkers. In 1938 the Society had a membership of 183; 36, or 20 per cent, resided in New York. It should be noted that Friedenwald makes no distinction between residents of New York City and of other parts of the state. However, on the basis of a much more detailed analysis of the membership lists of the American Ophthalmological Society, which was carried out some time prior to the appearance of Friedenwald's article and which it would take too long to present here, I am able to confirm his analysis and to state that his statistics are on the whole indicative of the relative size of the membership from New York City at different times.

It may be noted that the connection between New York and specialization has not been limited to ophthalmology. In 1873 an editorial writer in the *Virginia Clinical Record* remarked that "there are very few 'specialists,' simon-pure,

this side of New York. . . ."²² The development of other specialties, as, for instance, urology and dermatology, also exhibits significant connections with New York City.

As a result of the preceding analysis it is clear that New York has played a prominent and important part in the rise of ophthalmic specialization in America. This does not imply that other factors and conditions were not involved in this process, or that developments in other parts of the United States did not have any significant repercussions on ophthalmology in this country. There can be no doubt, however, that the appearance of ophthalmology as a *specialty* was intimately linked with New York City.

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TUBERCULOSIS DEATHS

A decrease of only 0.3 per cent in the tuberculosis death rate in forty-two of the largest American cities as a group occurred in 1941 compared with 1940, it was announced in December by the National Tuberculosis Association. In 1941 the rate for the entire country was 3.3 per cent lower than in 1940 and the rate for New York City rose 2 per cent to 55 per 100,000. The local rise was the first since 1936.

The study was made of cities of more than 200,000 population.

Twenty-two of the cities studied have large Negro populations. In these cities, as a group, the rate for whites was 42 and for Negroes 203.

TYPHUS SHOWS GAINS IN EUROPE

Since the outbreak of the war in North Africa and Russia, a noticeable increase has been seen in the number of victims of spotted typhus. Further indications of its rising proportions are clear from the fact that sporadic epidemics of the disease are appearing frequently in Central Europe, which has never before been infected.

Germany particularly has been touched by the disease, with cases being reported in 44 of its 74 administrative divisions. The threat of epidemics naturally becomes greater as standards of cleanliness are lowered and as troop movements carry the disease to previously uninfected zones.

Diagnosis

CLINICOPATHOLOGIC CONFERENCES

FOURTH MEDICAL DIVISION OF BELLEVUE HOSPITAL

Date: January 28, 1941

Conducted by: Dr. Harry A. Solomon

DR. CHARLOTTE T. PEIRCE: This was the third Bellevue admission of a 57-year-old Italian stonecutter who had been in excellent health except for an abdominal operation for shrapnel wound sustained in the last war. In July, 1941, he first noted a chronic nonproductive cough, exertional dyspnea, edema of feet and ankles, and swelling of the abdomen. The patient was treated at another hospital with paracentesis and diuretics and was then discharged, although he was still dyspneic. His symptoms recurred, and he was admitted to the Third Medical Division of Bellevue Hospital on October 11, 1941.* Physical examination revealed rales at the bases of both lungs; the blood pressure was 145/105; the heart was enlarged to the left; the point of maximum impulse was not felt; the heart sounds were fair, with normal sinus rhythm; A2 was greater than P2. The liver was felt down to the umbilicus, with flatness and shifting dullness in the flanks. There was 4-plus pitting edema of the extremities. A roentgenogram of the chest showed fluid at the base of the right lung and an enlarged heart, with disseminated nodular infiltration involving the major portion of both lung fields consistent with silicosis. Kymography showed abnormally diminished pulsations of the lower portion of the left ventricle, suggesting myocardial damage or enormous hypertrophy. The electrocardiogram showed normal sinus rhythm, low T waves, PR interval of 0.2 second, and no axis deviations. The blood Wassermann was negative. The erythrocyte count was 5,300,000, with 14-Gm. hemoglobin; the leukocyte count was 9,850, with 63 per cent polymorphonuclears, 18 per cent lymphocytes, and 19 per cent transitional cells. The blood non-protein nitrogen was 34 mg. per cent and the albumin-globulin ratio, 4.4/2.0 Gm. per cent. The patient was digitalized to toxicity and was given diuretics, with gradual improvement except for an episode of thrombophlebitis of the right leg. This, however, gradually subsided. Before discharge, a swelling of the left palm and palmar aspect of the left wrist were noted. A

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this side of New York. . . ."²² The development of other specialties, as, for instance, urology and dermatology, also exhibits significant connections with New York City.

As a result of the preceding analysis it is clear that New York has played a prominent and important part in the rise of ophthalmic specialization in America. This does not imply that other factors and conditions were not involved in this process, or that developments in other parts of the United States did not have any significant repercussions on ophthalmology in this country. There can be no doubt, however, that the appearance of ophthalmology as a *specialty* was intimately linked with New York City.

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TUBERCULOSIS DEATHS

A decrease of only 0.3 per cent in the tuberculosis death rate in forty-two of the largest American cities as a group occurred in 1941 compared with 1940, it was announced in December by the National Tuberculosis Association. In 1941 the rate for the entire country was 3.3 per cent lower than in 1940 and the rate for New York City rose 2 per cent to 55 per 100,000. The local rise was the first since 1936.

The study was made of cities of more than 200,000 population.

Twenty-two of the cities studied have large Negro populations. In these cities, as a group, the rate for whites was 42 and for Negroes 203.

TYPHUS SHOWS GAINS IN EUROPE

Since the outbreak of the war in North Africa and Russia, a noticeable increase has been seen in the number of victims of spotted typhus. Further indications of its rising proportions are clear from the fact that sporadic epidemics of the disease are appearing frequently in Central Europe, which has never before been infected.

Germany particularly has been touched by the disease, with cases being reported in 44 of its 74 administrative divisions. The threat of epidemics naturally becomes greater as standards of cleanliness are lowered and as troop movements carry the disease to previously uninfected zones.

On the second admission to Bellevue, after having been bedfast for one year and with a number of admissions to different hospitals, the patient showed symptoms of adhesive pericarditis. Favoring this diagnosis were the kymographic findings of diminished cardiac pulsation, the electrocardiogram showing low voltage in all leads and fixed QRS complex with change of posture, normal ether time in the face of elevated venous pressure and prolonged circulation time, hypertrophy of the right auricle and ventricle without cor pulmonale (diodrast studies of the heart), enlarged liver and spleen, polyserositis, and active tuberculous infectivity. On the other hand, the chest film did not show any irregularity of the cardiac border or pericardial calcification, and certainly the high blood pressure and pulse pressure would speak against the presence of constrictive pericarditis.

No information was available concerning the patient's history for the six months preceding his final admission, at which time he was in a state of deep coma and terminal bronchopneumonia. The blood pressure remained high, and there was evidence of a hemiplegia, so that it was reasonable to assume that a cerebral vascular episode terminated his life. Curiously enough, no congestive signs were noted at this time, but this may have been owing to prolonged dehydration.

In summary, then, the clinical aspects of this case were presented as follows:

- (a) Uncontrollable congestive heart failure, early attributed to hypertensive and arteriosclerotic heart disease.
- (b) Silicosis and tuberculosis of the lungs of long standing.
- (c) Dissemination of tuberculous infectivity by hematogenous and pleural spread.
- (d) Evaluation of changes suggestive of adhesive pericarditis.
- (e) Termination with cerebral vascular phase of hypertensive disease.

DR. EMANUEL APPELBAUM: It is possible that the patient had an advanced form of failure of the right side of the heart, except that the ether circulation time, determined during the preceding admission, was quite normal. There is insufficient evidence to support a diagnosis of chronic cor pulmonale. The presence of pulmonary tuberculosis has not been ruled out despite the absence of clear-cut radiographic evidence. In many respects, the clinical features resembled those found in Pick's disease. Taking all the facts into consideration, it seems to me that the most logical diagnosis is tuberculous pericarditis with cardiac compression.

The nature of the terminal episode is difficult

to determine. It is very likely that the patient sustained a cerebrovascular accident, probably thrombosis. The spinal fluid findings, showing a slight increase in protein and no pleocytosis, are consistent with this condition.

DR. MAX TRUBEK: This patient had a long, afebrile course of illness. The response to diuretics was also unusual for tuberculosis. I should say that he had long-standing hypertension, silicosis, and hypertrophy of the right side of the heart and possible damage to the left ventricle. Congestive heart failure is the cause of the fluid accumulations, and I would consider cortical infarction due to thrombotic softening as the cause of the cerebral insult.

Discussion of Pathology

DR. IRVING GRAEF: At necropsy, it was notable that there was no cyanosis, even of the postmortem type. There was no clubbing of the fingers or toes and no external edema. There was a healed longitudinal scar, 12 cm. in length, in the left upper quadrant overlying the left rectus muscle. On opening the abdomen, many fibrous adhesions binding the greater omentum to the anterior abdominal wall were found. Similar adhesions bound the liver to the diaphragm, spleen, and the splenic flexure of the transverse colon.

The right pleural sac contained 2 liters of slightly turbid brown fluid, which compressed the right lung. The left pleura was obliterated by fairly dense fibrous adhesions. The pericardial sac could not be opened because of dense adhesions uniting its walls. The myocardium and the chambers did not appear abnormal except that almost the entire anterior aspect of the heart was represented by the right ventricle. Sharp dissection of the pericardial adhesions revealed occasional zones of caseous necrosis squeezed between layers of dense connective tissue. The inferior cava was not constricted at the point of entrance into the right heart; the right auricle and auricular appendage were unaltered; the tricuspid valve and leaflets and its chordae tendineae were unchanged. The pulmonary conus was not abnormally wide. The wall of the right ventricle measured 3 to 5 mm. in thickness from the thinnest to the thickest portions. The left auricle and ventricle were unchanged; mitral and aortic leaflets were not remarkable.

Dissection of the pulmonary artery revealed moderate widening so that its branches could be traced almost to the periphery of the lungs. Here and there, small thin atheromatous plaques could be demonstrated.

Both lungs were increased in density and were less crepitant than normal. The pleural sur-

tion time was 5.7 seconds, the cyanide time, 20.8 seconds, and the edcholin time, 20.5 seconds. Electrocardiograms showed low voltage with no change accompanying change in position. Diodrast films taken of the heart showed the right auricle to be normal except for apparent thickening of the wall to 1.1 cm.; the right ventricle was moderately enlarged; the pulmonary artery and branches were normal; the left ventricular cavity was faintly outlined and approximately normal, the wall measuring 1.9 cm. Six hours after injection of diodrast, the patient had a generalized convulsion followed by left-sided paresis which was transient in character. Spinal tap at this time showed clear fluid with initial pressure of 240 mm.; the Pandy test was negative; there were no cells, and the Wassermann reaction was not reported. On a maintenance dose of phenobarbital, there were no further convulsions. The lesion of the left hand was diagnosed as tuberculous tenosynovitis, and the patient was transferred to the Orthopedics Service, where incision and biopsy were performed and diagnosis was substantiated by microscopic studies. The patient was discharged on June 8, 1942, and he was not seen again until November 21, 1942, when he was admitted to the Fourth Medical Division. No history was obtainable at this time.

On admission his temperature was 100.0 F., pulse, 84, respirations, 48, and blood pressure, 185/120. Physical examination revealed an obese white man in deep coma, with stertorous breathing. There was slight cyanosis of the lips and nailbeds. The head, eyes, ears, nose, and throat were essentially negative except for a slight weakness of the left side of the face. The neck was flaccid. There were numerous medium moist rales throughout both lung fields, with dullness and diminished breath sounds at the right base. The heart was enlarged to the left. The rhythm was slow and the sounds were of good quality. A2 was greater than P2. No murmurs could be heard. Examination of the abdomen revealed the liver to be four finger-breadths below the costal margin, and the spleen was one finger-breadth below the costal margin. There was no edema of the extremities. The legs were held rigidly, and there was voluntary resistance of the left arm. Abdominal reflexes and cremasterics were absent bilaterally. Biceps jerk and triceps jerk on the right were absent. Both knee jerks were present and were equal. A positive Babinski reaction was present on the right side.

Laboratory Data.—The blood Wassermann was negative. Urinalysis showed a specific gravity of 1.020, 3 plus albumin, and no glucose. The microscopic examination revealed occasional

granular casts. The white blood count was 8,700, with a normal differential. The erythrocyte count was 3,600,000, with 90 per cent hemoglobin.

Course.—A spinal tap was made and yielded clear fluid, with an initial pressure of 180 mm. There were no cells. The Wassermann was negative, and the total protein was 60. The temperature gradually rose to 104.8 F., and the patient died fifty-four hours after admission.

Discussion

DR. HARRY A. SOLOMON: In going over this case it seems to me that an understanding of the findings lends itself to a discussion of the developing clinical features.

In the first place, the patient, a 57-year-old stonecutter, was treated for intractable heart disease with severe and uncontrollable congestive failure. Because of his age, cardiac enlargement (particularly of the left ventricle), and elevated blood pressure, the cardiac status was no doubt placed in the hypertensive and arteriosclerotic group. Because of the advent of rapid and persistent congestive failure it was likely that there developed extensive myocardial damage either from coronary insufficiency, occlusive or otherwise, or, because of the absence of coronary pain, physiologic dilatation of a hypertensive heart. The x-ray of the chest showed left ventricular enlargement; the kymogram showed diminished pulsations of the apical portion of the left ventricle; the electrocardiogram, low voltage—all pointing to extensive myomalacia or dilatation. Likewise, in the electrocardiogram, the prolonged PR interval could be ascribed to digitalis toxicity, and the absence of left axis deviation to the neutralizing effect of hypertension of the lesser circulation produced by the constricting fibrosis of the pulmonary changes. The x-ray showing extensive changes of silicosis permits, therefore, the inference of pulmonary tuberculosis, too; but the clinical effect of these changes was limited—early, at least—to that of diminished vital capacity, pulmonary hypertension, accentuation of right heart insufficiency, and neutralization of left axis preponderance of hypertensive heart disease.

Dissemination of tuberculous infectivity in the aged is not an unusual finding at Bellevue, so it was reasonable to explain the appearance of the tuberculous tenosynovitis to hematogenous spread and the lymphocytic fluid in the chest to tuberculous effusion even though the guinea-pig inoculation proved negative.

Now, as frequently happens on any medical service, patients admitted in congestive heart failure, when followed up, show conditions not suspected at first.

THE SIGNIFICANCE OF RECTAL BLEEDING

STUART T. ROSS, M.D., Hempstead, New York

IN THE past, it has been the careless custom of many physicians to ascribe any rectal bleeding to the presence of hemorrhoids, often without even a cursory examination. Many articles have been written upon the subject, emphasizing primarily the danger of this nonchalance, especially as a potent means of overlooking a malignant neoplasm. Attention has been repeatedly called to the advisability of a digital examination in all cases. There are, however, a great number of conditions besides hemorrhoids and cancer which produce rectal bleeding. It is my intention here to attempt to enumerate these and, to a certain extent, codify them. Obviously, it is impossible to do this completely and in detail, since such an undertaking would cover nearly the entire field of proctology.

Most Frequent Causes

The most frequent causes of localized bleeding are hemorrhoids, carcinoma, various forms of polyps, anal fissure, and ulcerative diseases of the mucous membrane.

The subject of hemorrhoids is so well known that I shall limit myself here to calling attention to the necessity for a visual examination. Internal hemorrhoids cannot be accurately diagnosed with the unaided finger—an anoscopic view is necessary and easily accomplished.

Rectal carcinoma can often be reached with the finger and sometimes a rectosigmoidal lesion can be felt by examining the patient while he is straining down in a squatting position. However, lesions in the sigmoid proper—and these are numerous—cannot be felt, and, in any case, a far better concept of the condition of the tumor will be gained by adding a proctoscopic examination to a digital examination. It should be remembered that bleeding is not the only sign of colonic carcinoma. Change in bowel habit, early morning diarrhea, discharge of mucus or pus, and, in more advanced cases, signs of partial obstruction, are all to be looked for.

Under the term *polyp*, we include all the colonic adenomata, whether pedunculated or sessile. There are several varieties, all of which are potentially malignant, and should be destroyed if possible. A single polyp may occur anywhere along the course of the large bowel, but it is found most frequently in the rectum or sigmoid. Those in the rectal ampulla can nearly always be detected with the palpating finger and should in

any case be found by the use of the sigmoidoscope. Polyps located higher than can be visualized may usually be detected by means of a barium enema, using the double-contrast air-injection technic.

It is advisable to take biopsy specimens not only from the summit but also from the base or pedicle of the growth, including a portion of the adjoining mucous membrane, if possible. These specimens should be carefully studied in order to detect any early malignant changes.

Multiple polyps will fall into one of two categories: (1) a so-called idiopathic polyposis or (2) one secondary to chronic ulcerative colitis. These can be differentiated in that the former is likely to be familial and will have an apparently normal mucous membrane between the individual growths. Polyps secondary to chronic ulcerative colitis, however, will be separated by areas of the diseased mucous membrane characteristic of the primary condition. Even during remissions, a swab applied to the mucosa will usually produce some bleeding.

Anal fissure is comparatively easy to diagnose. The small amount of blood (often simply a streak on the cleansing paper), the excruciating pain associated with or following the bowel movement, and the visualization of the lesion itself with its sentinel pile present a picture difficult to mistake.

The remaining major causes of bleeding from local lesions consist of the ulcerative diseases and various forms of proctosigmoiditis, exclusive of cancer. The most important of these are chronic ulcerative colitis, lymphogranuloma venereum, amebic and bacillary dysentery, and tuberculosis.

Tuberculosis may occur in the form of localized ulcers, diffuse colitis (usually terminal), and tuberculous hyperplasia. It is most often found in the cecum or ascending colon. Although gross or microscopic blood may be observed in cases of tuberculosis in this site, it is a rare phenomenon outside of tuberculosis sanatoriums.

Preoperative diagnosis of tuberculous hyperplasia of the ileocecal region will be made, if at all, by barium enema. The picture is one of a filling defect, sometimes indistinguishable from cancer on the one hand, and frequently from non-specific ileotyphlitis on the other.

Diffuse tuberculous colitis exists, as a rule, only in the terminal stages of a pulmonary or generalized tuberculosis. History, x-ray, proctoscopic findings, and bacteriologic examinations will reveal the diagnosis.

Localized ulceration in the rectum and colon

faces contained small, fairly evenly spaced blackish nodules, about 2 mm. in diameter. On section, the centers of the nodules were grayish and the periphery was black. Section of the lung disclosed an almost universal distribution of similar nodules at all depths. Areas of collapse alternated with areas of emphysema were present, but in the right lower lobe there was notable collapse and absence of crepitus. The bronchi and bronchioles were bilaterally and cylindrically dilated.

The peribronchial and paratracheal lymph nodes were enlarged and were blackish gray in color; on section, these nodes were dense and apparently scarred. Some nodes were the seat of caseo-calcific deposits.

The liver and spleen exhibited marked thickening of the capsules because of the deposit of connective tissue. The rest of the viscera were not remarkable except that the left testicle was smaller than the right. On section, the organ appeared fibrotic and the tubules could not be teased out. The epididymis on this side contained a small, grayish nodule, 3 mm. in diameter, embedded in one pole. A large area of caseous necrosis was found in the medulla of the right adrenal gland. Permission to examine the head could not be obtained.

Microscopic Findings.—In general, the sections confirmed the gross impression that the lungs were the seat of extensive anthracosilicosis of the nodular type. The characteristic nodule was composed of concentric whirls of connective tissue with central clefts, some of which contained highly refractile, unstained material suggestive of silicotic particles. At the periphery, aggregations of macrophages filled with carbon particles formed the margin of the nodules. However, three sample sections failed to disclose the presence of tubercles in the lungs. The small arteries and pulmonary arterioles were only slightly thickened by medial fibrous changes.

The pericardium was the seat of a chronic inflammatory process. Sections including both layers contained central areas of caseous necrosis bounded by tuberculous inflammatory tissue. The adrenal gland was the seat of an active caseous inflammation. The left epididymis was partly replaced by fibrous tissue in which no evidence of tuberculous infiltration could be demonstrated.

Review of the surgical specimen removed from the left little finger indicated that the tuberculous synovitis reported earlier was of duration com-

parable to the other tuberculous lesions. In it there were numerous old fibrotic tuberculous lesions as well as the more active exudative synovial inflammation.

Comment.—This case may be analyzed from many aspects. It is apparent that although anthracosilicosis was fairly advanced, it led only to moderate pulmonary hypertension as shown by the state of the pulmonary arteries and the size of the right side of the heart at necropsy. This statement must be qualified because of the probable constricting effect of chronic tuberculous pericarditis. It may be held responsible for some degree of interference in the right heart filling. Pleural effusion and peritoneal ascites may also be related to this lesion.

It is notable that random sections of the lungs revealed no tuberculous lesions although evidence of spread of tubercle bacilli via the blood stream was strongly suggested by the adrenal, synovial, the pericardial, and the old epididymal lesions. Because of the obsolete hilar lymphatic focus, we can only infer now that the original portal of entry was in the lung and probably healed, while the distant foci of tuberculosis continued to smolder. The peritoneal adhesions, the pleural adhesions, and the effusions of fluid into these scars are evidence to support the possible diagnosis of Pick's syndrome in the patient, especially because of the presence of tuberculous pericarditis. The multiplicity of lesions present and the possibility of unrelated inflammation of these serous membranes make it difficult to invoke this diagnosis with certainty.

Anatomic Diagnoses

CHRONIC TUBERCULOUS PERICARDITIS.

Diffuse nodular silicotic pneumoconiosis.

Obsolete caseo-calcific hilar lymphadenitis.

Caseous tuberculosis of right adrenal.

Pleural effusion, right.

Healed pleuritis, left.

Chronic passive congestion of liver and spleen.

Chronic perihepatitis.

Chronic perisplenitis.

Healed focal epididymitis.

Atrophy of left testis.

Pulmonary emphysema and cylindrical bronchiectasis.

Intra-abdominal peritoneal adhesions at operative site.

Healed surgical incision, left upper quadrant.

Tuberculous tenosynovitis, left hand, healed.

JUST A MINUTE—

"Are you John A. Van Dorky?" asked the young man beside the coat rack.

"No," was the surprised reply.

"Well, I am," came the frosty rejoinder, "and that is his coat you are putting on."

—*Milwaukee Medical Times*

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Localized ulceration in the rectum and colon

Read before the Proctologic Society of the Graduate Hospital, University of Pennsylvania, March 18, 1942.

is revealed by proctosigmoidoscopy in the form of shallow, ovoid ulcers with undermined edges and dirty gray bases. Scrapings from the ulcer bases may reveal the *Mycobacterium tuberculosis*.

Tuberculous ulcers about the anus will be found to be shallow, with sharply defined undermined edges, a nodular floor, and a scant, foul discharge. They are usually painless, unless within the grasp of the sphincters.

All of these varieties are much more frequently found in patients with an associated pulmonary tuberculosis. Moreover, any bleeding is apt to be slight in amount.

The presence of *amebiasis* will be difficult to determine, and the absolute diagnosis will rest upon the finding of the *Endamoeba histolytica* in the stool or on the bowel wall. The stool will probably be loose and mixed with mucopurulent material as well as with blood. Proctosigmoidoscopy reveals rather typical isolated ulcers, deep rather than shallow, and with a predilection for prominent folds of the bowel. If the diagnosis is suspected but cannot be confirmed, a therapeutic test with emetine may clear up the matter.

Bacillary dysentery also presents a picture of diarrheic stools mixed with mucus, pus, and blood. The ulcers tend to be more shallow than they are in the amebic variety and are less definite in character. Bacillary dysentery may be easily confused with chronic ulcerative colitis even on direct visual examination. Final diagnosis is made by finding the specific organism in the stool culture in the first week or two of the disease, or later by the specific agglutination reaction of the patient's serum.

There remains the subject of chronic idiopathic ulcerative colitis, which is the most serious cause of rectal bleeding, except for carcinoma itself. The cause of this disease is not definitely known; it has a guarded prognosis, and a difficult and prolonged treatment. It should be one of the first possibilities to enter the mind of the diagnostician when he is confronted with the presence of blood in the stools, especially when accompanied by loose or very frequent movements.

The cause, while not proved, is probably streptococcal; the incidence is greater in men and occurs most frequently in patients between the ages of 20 and 40. Although the majority of cases begin in the rectum and progress cephalad, there exists a variety which may be localized to a small segment anywhere in the colon. Fansler has described a condition which appears identical with the ordinary ulcerative colitis except that it is limited sharply to the lower segment of the rectal mucous membrane. It is his present opinion that this particular entity may be the

same as regional ileitis, localized to the final 2 inches of the bowel.

Ulcerative colitis is usually not difficult to diagnose on proctoscopy. In the preulcerative stage, the mucous membrane is the site of a diffuse inflammation and appears to be studded with small granules from 1 to 2 mm. in size. These really are minute abscesses. Later, they break down to form large irregular ulcers, presenting a picture which once seen is not easily mistaken. Still later, the bowel becomes thickened, haustrations are less marked, and the involved colon is transformed into a more or less rigid tube. Common complications are perirectal abscesses, polyposis, and strictures. The proctoscopic appearance is so characteristic that when the physician is confronted with an ulcerative condition that resembles chronic ulcerative colitis but which he has not confirmed as that, he will do well to rule out the other causes of large bowel ulcerations, especially bacillary dysentery.

Less Frequent Causes of Rectal Bleeding

These may be listed as follows: diverticulitis, intussusception, fistula, the presence of a foreign body, lymphogranuloma venereum, actinomycosis of the cecum, thrombosis of the mesenteric vein, trauma, drugs, acute gastro-enteritis, pinworms, peptic ulcer, prolapse and procidentia, impaction, chancre and chancroids, condylomata, Meckel's diverticulum, hemangioma, vicarious menstruation, nephritis and hypertension, radiation proctitis, endometriosis, and nonspecific granuloma.

To these may be added, for the sake of completeness: cholera, yellow fever, typhoid, sprue, malaria, scurvy, septicemia, the blood dyscrasias (including Henoch's purpura), icterus, and swallowed blood from epistaxis, esophageal varices, hemoptysis, and ruptured aneurysm.

Lymphogranuloma venereum may likewise exhibit blood per anum, but the diagnosis in this case is likely to be easy. Obviously, bowel hemorrhage from lymphogranuloma venereum will be confined to those suffering from the rectal manifestations of the disease, and the patients will be found almost exclusively to be adult negroes between the ages of 20 and 40. This stipulation is, of course, not absolute, but will be observed in the overwhelming majority of cases.

The proctitis of lymphogranuloma venereum occurring in the presence of stricture, produces a discharge which is a dirty, rather thin, often bloody material. However, there is a period following the primary inoculation with the virus, and before the appearance of the stricture, during which the proctitis appears alone, and a bloody purulent discharge exudes from the granulating

surface which replaces the normal mucous membrane. As Evans has recently brought out,¹ approximately six weeks elapse between infection of the rectal mucosa and the development of symptoms. In the majority of cases, stricture formation will begin within three months after the onset of proctitis. Since with the use of the sulfonamide drugs a cure may be expected in many cases which are exhibited before the onset of stricture, the importance of early recognition of this form of proctitis is evident. Either the Frei test, using mouse-brain or chick-embryo antigen, or the complement-fixation test may be used to differentiate lymphogranuloma from other forms of proctitis.³ (Lygranum antigen has been employed for complement-fixation. In well over 90 per cent of the serums, there was complete agreement with the cutaneous tests. The new test is especially valuable with a doubtful skin test and permits some gradation quantitatively of the progress of the disease.)

Prolapse and procidentia are terms that cannot be used interchangeably. The former designates an abnormal descent of the mucous membrane of the rectum, whereas the latter denotes an abnormal descent of all the coats of the rectum. Either condition may be internal or external, depending upon whether the protrusion appears outside the anal orifice. In the external variety of either prolapse or procidentia, the diagnosis becomes obvious when the patient is asked to strain.

Bleeding occurs when the mucous surfaces become irritated by friction, but it is usually slight in amount. In the internal varieties the diagnosis is often quite obscure. Blood-tinged mucus may be observed without apparent cause, and in cases of procidentia of the sigmoid, the condition is sometimes not determined except by digital examination with the patient in a squatting posture. Thus, sigmoid intussusception is to be thought of when blood-tinged mucus is not accounted for on ordinary examination or x-ray.

Diverticulitis may produce small amounts of blood mixed with feces in about 10 per cent of cases. (Hayden cites blood in 28 out of 140 cases—20 = 3.38 per cent.) However, this leaves about 80 to 90 per cent which do not bleed. In any case, when bleeding is found in the presence of a known diverticulitis, it is essential to use every means, including x-ray, to rule out carcinoma, as the two may coexist. Diverticulosis without inflammation does not produce bleeding.

Bleeding peptic ulcer and other forms of hemorrhage from the upper intestinal tract will usually be demonstrated by dark, tarry material in the stool. Otherwise, the blood may be undetectable except by chemical tests. It should be

noted here that if the hemorrhage produces a very large quantity of blood, some of it may not be acted upon by the time it has reached the anus, and may still be red instead of black. However, in this case the constitutional symptoms and history will probably be sufficient to establish the diagnosis.

Intussusception, excepting procidentia of the sigmoid, occurs principally in infancy, most often about the eighth or ninth month of age. The blood is accompanied by mucus and by an abdominal tumor in an acutely ill child with symptoms of obstruction.

Trauma and foreign bodies, while important causes of bleeding, are usually readily diagnosed by the history and ordinary methods of anorectal examination. *Fecal impaction* is also easily found by means of a simple digital exploration, although a complete proctologic examination should always be done after the impaction has been removed and the patient is in condition to undergo the procedure.

Summer diarrhea of children, and *irritant drugs*, especially arsenic, calomel, and excess purgation in any form, may give rise to transient bleeding which stops when the causative factor is removed.

Chancre, chancroids, and less often *condylomata* may produce a sanguineous discharge, but the source is obvious upon inspection.

Meckel's diverticulum is found mostly in children. In some cases there have been found small areas of gastric mucosa, which is susceptible to ulcer formation. The character of the bleeding from a Meckel's diverticulum is quite indefinite—it may be bright or dark, mixed or unmixed with the feces. Hudson has reported a series of 32 cases from the Children's Hospital in Boston, with rectal bleeding in 17 (53 = 8.8 per cent).²

Fistula-in-ano or *cryptitis* may be accompanied by a small amount of blood on the outside of the stool.

Pinworms (*Oxyuris vermicularis*) may be the source of small amounts of blood, especially in children. They are to be suspected particularly when there is itching about the anus, increasing at night, and can be diagnosed by finding either the ova or the worms themselves in the stool.

Actinomyces of the cecum is fortunately a rare entity, and when present will usually offer enough other signs that the rectal bleeding will be simply an associated symptom.

Hemangioma is a blood vessel tumor, ordinarily benign. It is fortunately quite rare, but may produce alarming, massive hemorrhages when present. The majority of these tumors appear in the small intestine, although several have been

reported in the rectum and colon. When the tumor cannot be visualized with a sigmoidoscope, diagnosis is made only on exploratory laparotomy.⁴

Radiation proctitis represents an inflammatory process of the rectum resulting from the use of radium, usually for the treatment of carcinoma of the cervix. Bleeding is almost always present, slight in amount and usually in the form of clots which are passed with the stool. Proctoscopy, together with a careful history, will readily disclose the diagnosis. The lesion is usually situated on the anterior rectal wall and appears as an oval, pearl-gray plaque surrounded by telangiectases.

Endometrial implants are rarely found in various parts of the bowel and the rectovaginal septum. Although bleeding is uncommon with this condition, it may occasionally be noted. Endometriosis occurs only in women of the child-bearing age and is diagnosed by the presence of firm, tender nodules and rectal pain which is accentuated with each menstrual period.

Classification

Classification of the more common causes of bloody emanations from the rectum according to type and age of the patients is as follows:

Infants

Hemorrhagic disease of the newborn
Intussusception

Older Children

Prolapse
Rectal polyp (usually single)
Summer diarrhea (acute gastro-enteritis)
Pinworms

Adults (20 to 40)

Hemorrhoids
Fissure and fistula
Polyposis or single polyps
Ulcerative colitis
Amebic or bacillary dysentery
Diverticulitis

Older Adults

Carcinoma
Hemorrhoids
Prolapse and procidentia
Impaction
Polyps
Dysentery, amebic or bacillary

Adult negroes are especially prone to lympho-granulomatous strictures.

The following diagnostic points may be mentioned:

1. A chronic or subacute bloody diarrhea is likely to signify, in the following order:

- (a) Chronic ulcerative colitis
- (b) Carcinoma, or
- (c) Amebic dysentery

2. With hemorrhoids, fissure, and fistula, the blood is not usually mixed with the stool, and since the site of these lesions is low, very little, if any, mucus is associated.

3. When mucus as well as blood is present, it is probable that something more than hemorrhoids is involved.

Summary

When confronted with a complaint of blood per anum, the physician must make a differential diagnosis between the numerous conditions capable of producing this symptom. There has been made an attempt to list and comment briefly upon the more common and the less common of these conditions, and to mention the rarities. Some practical points in differential diagnosis have been emphasized.

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\$150,000 GIFT FOR TROPICAL MEDICINE

Dr. Willard C. Rappleye, dean of the College of Physicians and Surgeons of Columbia University, has announced that Columbia-Presbyterian Medical Center will shortly launch a five-year program of research and teaching in tropical medicine. This program has been made possible by a \$150,000 gift from the Josiah Macy, Jr., Foundation. It has been formulated, according to Dean Rappleye, to meet the country's "great responsibility" to train physicians and medical students in tropical medicine.

A regular department of tropical medicine will be set up in the De Lamar Institute of Public Health, which is a division of the College of Physicians and Surgeons. Existing laboratories and clinical facilities will be used and cooperation will be established with the city's Health Department. Columbia's School of Tropical Medicine at the University of Puerto Rico will be utilized as a field station and its work coordinated with the teaching program in New York.—*J. Med. Soc. Co. N.Y.*

THE DEMONSTRATION OF MALIGNANT CELLS IN VAGINAL SMEARS AND ITS RELATION TO THE DIAGNOSIS OF CARCINOMA OF THE UTERUS

GEORGE N. PAPANICOLAOU, M.D., and HERBERT F. TRAUT, M.D., New York City

THE exfoliation of normal epithelial cells which line the uterine cavity, the cervix, and the vagina is a phenomenon which is generally known and accepted. It is not widely known, however, that abnormal epithelial cells resulting from pathologic processes, including cancer, are shed and that they may be collected and studied by a simple technic. It is our purpose to point out some of the things that may be learned from the study of vaginal smears, particularly in relation to the diagnosis of cancer of the fundus and cervix of the uterus.

The methods used in making the smears¹ and in staining² them have been previously reported. Before one can hope to recognize and analyze the meaning of abnormal cell forms as they appear in vaginal smear preparations, it is necessary to gain experience with the variations in the normal cell pattern as a background. The process is in many respects analogous to that pertaining to the use of stained blood smears, essential to the recognition of many blood diseases. The pathologist will find but little help from the vaginal smear until he has approached the task with a well-founded knowledge of the normal variations as well as of those which result from benign pathologic conditions, such as trichomonas vaginitis, cervical and endometrial polyps, hyperplasia of the endometrium, and inflammations of the cervix and endometrium. Having done this, however, he is in a position to give valuable diagnostic aid to the clinician in the form of advice concerning patients who should be kept under careful observation, as well as those with early evidences of the disease or with well-established lesions.

For the past two years, vaginal smears have been made routinely upon every woman admitted to the gynecologic service of the New York Hospital. By use of the vaginal smear, a considerable number of asymptomatic and therefore unsuspected cases of uterine malignancy have been discovered, some of them in such an early stage of development that they were invisible to the unaided eye or undemonstrable by the biopsy method. Two cases, one an adeno-

carcinoma of the fundus and the other a squamous carcinoma of the cervix, will serve to illustrate.

Case Report

Case 1.—Miss J., aged 61, had never had any symptoms which could be correlated to a malignancy of the fundus of the uterus, having come to us because of chronic bladder difficulties. We took weekly vaginal smears for a period of four months, and all were indicative of adenocarcinoma. Two curettage biopsies failed to corroborate the vaginal smear diagnosis. Accordingly, a third biopsy was done, from which a small, suspicious fragment of tissue was obtained. Hysterectomy showed a small polypoid area of carcinoma situated in the corner of the left side of the uterus—in fact, such a small lesion that three attempts with the curette were required before the growth could be demonstrated.

Case 2.—Mrs. Q., aged 47, came to the Out-Patient Clinic of the New York Hospital complaining of symptoms referable to a relaxed pelvic floor and some descensus of the uterus, with cystocele and rectocele. Routine vaginal smear revealed cells that were thought to be characteristic of squamous cell carcinoma of the cervix. However, the most minute examination of the cervix and vagina failed to reveal any visible lesion. Repeated biopsies were made without discovering anything malignant, although some hyperkeratotic zones of epithelium were found.

The patient was kept under observation for four months, with careful inspection of the cervix and vagina at monthly intervals. Finally, a small area of leukoplakic epithelium was observed and a biopsy made, showing an unquestionable early squamous cell carcinoma of the cervix. During the four months of observation, weekly vaginal smears were made, in each of which could be seen the cellular picture of squamous cell carcinoma of the cervix.

This is interpreted as an instance of early carcinoma of the cervix in which the vaginal smear made the diagnosis possible at a much earlier date than would have been possible by means of biopsy technic. Furthermore, this diagnosis could not have been made had we not been making routine vaginal smears of all patients.

That the early lesions of squamous carcinoma and adenocarcinoma of the uterus can be detected is a finding of great importance; heretofore there has been no method available for the accomplishment of this end. As is well known, the early lesion can usually be cured, and not only

¹ Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942.

² From the Departments of Anatomy and Obstetrics and Gynecology of the Cornell University Medical College, New York City.

¹ Papanicolaou, George N., and Traut, Herbert F.: *Am. J. Obst. & Gynec.* 42: 143 (1941).

² Papanicolaou, George N.: *Science* 95: 438 (1942).

that—it can be cured by simple and relatively inexpensive means. If a vaginal smear study could be made once or twice a year on each woman in the cancer-bearing period of life, it would be possible to change the whole aspect of present experience with this disease of the uterus. The importance of such a project may be grasped when one realizes that only rarely in the use of other methods does one encounter the early lesion. Therefore, our present treatment is largely of advanced lesions, with but little over 30 per cent cure. Furthermore, about 15,000 women succumb annually to the ravages of the disease.

Although it is possible to learn how to make the diagnosis of carcinoma of the uterus only through actual experience, we may nevertheless attempt to outline the criteria upon which the diagnosis is based.

Squamous Carcinoma of the Cervix

The cells show great variations in form and size. Generally speaking, the more undifferentiated forms exhibit the smallest cells. The reduction in size is due chiefly to smaller amounts of cytoplasm. Mitoses are rarely observed, but enlarged, malformed, and hyperchromatic nuclei with granular chromatin and prominent nucleoli are typical. Most of the cells are discrete, but many are seen in groups or sheets. The cytoplasm is often dense and stains dark. In well-differentiated carcinomas one may see spindle-like triangular or ameboid shapes. Some of the cells reach unusually large sizes. Cytoplasm may be cornified or may show pronounced vacuolation.

Adenocarcinoma of the Cervix

In general, the nuclear changes are similar to those outlined for the squamous variety. The cells are much smaller, however, and may be seen more frequently in clusters. The more embryonic types may have little demonstrable cytoplasm, and these growths nearly always shed cells in clusters consisting of from few to many cells. It requires much experience to differentiate this type of adenocarcinoma of the cervix from that which is characteristic of the fundus.

Adenoacanthoma of the Fundus

This type of carcinoma yields cells in the vaginal smear which have relatively abundant cytoplasm, often acidophilic to some degree and frequently vacuolated. The cells are comparatively large. The nuclei are also enlarged and

show characteristic inequalities in shape and form.

Adenoma Malignum of the Fundus

This is the most difficult carcinoma of the uterus to discover by means of the vaginal smear, the reason being that many relatively normal forms are intermixed with cells bearing malignant characteristics. The cells are shed in clumps. Therefore, one must go to some pains to find small groups and to observe several of these before arriving at negative conclusions.

Adenocarcinoma of the Fundus

Groups of cells, many of which contain nuclei with an atypical arrangement of the chromatin, deep basophilia, and irregularities of shape, and size, are found in this type of carcinoma. The cells contain very scanty cytoplasm and usually are small, the smallest approximating the size of a polymorphonuclear leukocyte.

In addition to the specific cellular changes, there are accessory factors which, though they do not have diagnostic importance in themselves, are contributory, and often serve to arouse one's suspicions when present. Among these are the presence of erythrocytes, clumped leukocytes, histiocytes, and the small basal cells which evidently come from the malpighian layer.

As has been said, there are numerous benign pathologic conditions, such as chronic cervicitis, endometritis, and prolonged hyperestrogenic conditions, which may, and often do, result in the appearance of somewhat modified cervical and endometrial cells in the smears. Such cells form atypical groups, and the individual cells may acquire atypical forms such as enlarged nuclei and vacuolation of the cytoplasm; however, these always retain normal nuclear content and arrangement. One must therefore be familiar not only with the normal cells of the vaginal smear but also with these atypical forms.

A positive diagnosis of malignancy should not be given until numerous characteristic and pathognomonic cells and cell groups have been seen. Negative findings should not be considered as final, particularly when atypical cells or some of the suspicious signs such as the presence of erythrocytes, polymorphonuclear leukocytes, and groups of histiocytes are seen. Under these circumstances, or when there is bleeding or a profuse watery discharge, further smears should be examined.

A well-illustrated monograph is in the process of preparation and should be of great assistance to those who desire to learn the exact details of this method of diagnosis.

Case Report

HEMATURIA WITH PROGRESSIVE OLIGURIA DUE TO BILATERAL URETERAL OBSTRUCTION FOLLOWING SULFATHIAZOLE ADMINISTRATION; SIGNIFICANCE OF EARLY CYSTOSCOPIC AND URETERAL LAVAGE

SAMUEL LUBASH, M.D., F.A.C.S., and JACOB H. TURKELL, M.D., New York City

A NUMBER of investigators^{1,5-9} have shown that extrarenal* as well as intrarenal obstruction to urinary flow can occur following the administration of the sulfonamide group of drugs. Clinical reports^{12,14,16} in which obstruction to urinary flow was primarily due to extrarenal deposits of sulfapyridine have confirmed the experimental findings. To date there has not appeared a clinical report in which inefficiency of urinary flow following sulfathiazole administration was primarily due to extrarenal obstruction. Thus, Pepper and Horack² reported a case of anuria due to sulfathiazole concretions deposited in the collecting tubules. Knoll and Cooper⁴ describe a case of gross hematuria associated with a rise in nonprotein nitrogen and blood pressure. Arnett¹² reported a case of severe hematuria and lumbar pain following sulfathiazole therapy. The only case,¹⁷ to date, in which sulfathiazole concretions were found in the extrarenal passages did not give any clinical signs of urinary complications or renal suppression. The findings were incidentally disclosed at autopsy. Flippin *et al.*,¹⁸ in a comparative study of sulfapyridine and sulfathiazole therapy for pneumonia, mention the finding of crystals of acetyl sulfathiazole in the pelvis as well as the tubules of both kidneys in a fatal case of endocarditis. They, too, do not mention whether or not any signs of renal suppression occurred. To our knowledge, the following case is the first to be reported in which urinary suppression with anuria following sulfathiazole administration was caused primarily by extrarenal obstruction—namely, deposition of crystalline sediment in both ureters.

Case Report

M. S., a 76-year-old woman, was first seen for a cold by her private physician, Dr. Louis Greenwald, of New York City, on January 15, 1941. The following data were obtained from his records:

Examination at the time the patient was first seen revealed dyspnea, cyanosis, fibrillation with marked pulse deficit, and bilateral basal pulmonary rales with an area of crepitant rales below the right scapula. The blood pressure was 160/100. The blood count was: hemoglobin, 95 per cent; red blood count, 4.8; white blood count, 8,400, with 84 per cent polymorphonuclears. The urine showed a trace of albumin and an occasional white blood cell. Past history revealed that the patient was a known hypertension arteriosclerotic cardiac of two or three

years' standing, suffering from episodes of dyspnea, edema of the legs, and paroxysms of fibrillation for which she was given digitalis. She had also been a chronic bronchial asthmatic for many years. There was no history of any renal disease. On January 16 the patient was started on sulfathiazole, 1 Gm. q4h. Digalen, grain twice a day, 1½ was prescribed. Owing to the drop in temperature to 100 F. with symptomatic improvement, the drug was discontinued the next day, January 17, after a total of 7 Gm. had been given. NaHCO₃, 1 teaspoonful three times a day, was then prescribed. During the twenty-four-hour course of therapy, the fluid intake was 2,040 cc. and the urinary output 1,440 cc., with an additional 600 cc. of clear urine voided in a period of four hours following the last dose of sulfathiazole. Twelve and one-half hours after the last dose the patient began to complain of a desire to void and, with difficulty, passed 120 cc. of urine. Three hours later she again complained of discomfort and inability to void. Catheterization was resorted to and 45 cc. of dark-reddish urine were obtained. This was sent to a neighboring laboratory for analysis, which reported a + plus albumin, many red blood cells, positive benzidine, and many crystals described as resembling leucine and tyrosine. One hour following catheterization she voided 120 cc. of dark-red urine. During the next two and one-half hours she still complained of discomfort and urgency but was unable to pass more than 15 cc. on three separate occasions. The presence of urinary obstruction due to sulfathiazole was considered probable, and because of the possibility of impending anuria, the patient was hospitalized on January 18.

On admission to the Beth Israel Hospital she appeared slightly cyanotic and moderately dyspneic. She complained of pain over the right kidney. There was no icterus; the liver was not felt, but the overlying area was tender. There was questionable dullness at the right pulmonary base, with generalized coarse rales throughout and fine crackling rales in the bases and axillae. The heart was not enlarged and no murmurs were present, but there was a regular sinus rhythm with no pulse deficit. The blood pressure was 190/98. A + plus pretibial edema was present. The temperature was 99.6 F.; respiration 42; pulse 90. Blood count showed hemoglobin 101 per cent; red blood count, 4.9; white blood count, 7,300, of which 5 per cent were stab cells. Sulfathiazole concentration in the blood was 1 mg. per cent. N.P.N., which was done at first by the intern on call and reported as 44, was later found to be 78.

Cystoscopy with ureteral catheterization was done. The bladder was slightly congested and held 1 cc. of very bloody urine. No concretions were noted in the bladder. There were numerous crystals protruding from and surrounding the right ureteral orifice. The left ureter showed one crystal protruding from its orifice. Punctate lacerations about the right ureteral orifice were noted. The ureters

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*The term "extrarenal" indicates the urinary passages outside the kidney proper—viz., pelvis, ureters, and bladder. The term "intrarenal" designates the collecting tubules of the kidney.

were catheterized, and immediately a shower of crystals simulating a snowstorm descended from both ureteral orifices down along the sides of the catheters into the bladder. Twenty cc. of blood-tinged urine was obtained from the right kidney and 10 cc. from the left. Both catheters were allowed to remain *in situ*, and lavages of warm sterile water were started. Microscopic examination of the sediment secured from the ureters showed innumerable sulfathiazole crystals with many red cells. For chemical examination the total sediment was extracted with acetone. This yielded 480 mg., of which 258 mg. were conjugated drug, 210 mg. were in the free form, and 12 mg. were extraneous material.

The catheters were allowed to remain indwelling in both ureters for sixteen hours and during this time 700 cc. of urine was obtained. Lavage was repeated every fifteen minutes in order to prevent blocking of the catheters. Because of the patient's cardiac status, fluid therapy had to be carefully outlined in order to secure rapid urine alkalization and diuresis without overtaxing the myocardium. A hypodermoclysis of 600 cc. of Hartman's solution was given. A slow intravenous of Ringer's solution at 40 drops per minute was started, with repeated portions of 50 cc. of 50 per cent sucrose. Potassium citrate and Ringer's solution were given orally. The patient was placed on a maintenance dose of digitalis. After removal of the catheters, the patient voided 1 ounce of dark-reddish urine, pH 6. This revealed many red blood cells, a few hyaline casts, and a moderate number of sulfathiazole crystals. During the next 17½ hours she began to void more freely, her urinary output totaling 1,470 cc. She had had during this time a fluid intake of 2,790 cc. Examination of the urine passed now gave an alkaline reaction, pH 7.5. No crystalline sediment was present. The N.P.N. of the patient returned to 26 mg. per cent. Because of the elevated CO₂ (79.9) and increased dyspnea, alkalization was discontinued, the patient was placed on a cardiac regimen, with salt free diet, restricted fluids, and nasal oxygen. Digitalis was continued. In spite of this regimen, dyspnea became more severe. The temperature fluctuated between 100 and 102 F. X-ray revealed senile emphysema with unresolved patches of consolidation in the left upper and both lower lobes. The patient continued to go downhill and died on January 24, 1941, the seventh day of hospitalization.

An N.P.N. taken one hour before death was 27. At no time did the patient become anuric or show other signs indicative of the recurrence of renal obstruction. A routine urine taken had a specific gravity of 1.030. This showed that renal function was adequate.

Although the death of the patient was probably due to cardiac failure with a superimposed bronchopneumonia, there is little doubt that the oliguria and transitory uremia played a contributory part. We believe the latter complications were secondary to renal insufficiency resulting from tubular but primarily ureteral obstruction of the kidney passages by crystalline deposits of sulfathiazole.

Discussion

Gross *et al.*¹ pointed out that sulfapyridine uroliths tend to be precipitated in the pelvis and ureters, whereas sulfathiazole deposits were found more commonly in the renal tubules. Since then, the tendency has been to differentiate the mechanism responsible for the urinary obstruction caused by the two drugs—that is, if sulfapyridine causes the

obstruction, it is of extrarenal origin, whereas if sulfathiazole causes the obstruction, it is of intrarenal origin. Such a concept leads to the danger of disregarding the significant role that extrarenal obstruction might play in cases receiving sulfathiazole therapy. That no such sharp line can be drawn between the two drugs is indicated by the case reported. In any case of obstruction, whether by sulfathiazole or sulfapyridine, one should not forget to guide the therapy by the recognition of the fact that extrarenal as well as intrarenal concretions may be present.

The importance of treating the intrarenal obstruction by discontinuance of the drug, forcing fluids, and immediate alkalization of the urine is now a well-established principle.^{3,10,12,16} Gross⁷ and Antopol⁸ have shown experimentally that the crystalline deposits dissolve on discontinuance of the medication. It is to the treatment of the extrarenal type of obstruction that we wish to call particular attention. The presence of hydronephrosis, hydro-ureters, or a distended, obstructed bladder have been only too commonly demonstrated in the experimental animal.^{1,5,6} Cases of extrarenal urinary obstruction are being reported more and more frequently.^{13,14,15,16} Cognizance of the cystoscopic manipulation and its importance is shown in the cases reported by Tsao,¹³ Carroll,¹⁴ and Dourmashkin and Warton.¹⁶ The latter^{14,16} were able to re-establish kidney drainage by ureteral catheterization in cases of bilateral ureteral obstruction following sulfapyridine administration.

In our own case, we feel that relief of the urinary obstruction was in great part due to removal of the extrarenal deposits by ureteral catheterization and lavage. Were it not that the patient finally succumbed to the bronchopneumonia and cardiac decompensation, she probably would have fully recovered from her urinary complications.

There is one other point worthy of emphasis, previously pointed out by Sadusk *et al.*,¹¹ viz., the use of caution in the administration of even small doses of these drugs in elderly patients with chronic cardiovascular disease. In the case reported here, only 7 Gm. had been given with, apparently, an adequate fluid intake, yet this was enough to cause dangerous urinary obstruction.

Summary

1. A case is reported in which hematuria and oliguria, with elevation of the N.P.N., resulted from bilateral obstruction of the ureters following the administration of only 7 Gm. of sulfathiazole for pneumonia in an elderly patient with chronic cardiovascular disease. Bilateral ureteral catheterization helped to bring about re-establishment of kidney drainage.

2. Animal experiments now substantiated by clinical reports show that sulfathiazole, like sulfapyridine, can crystallize within the extrarenal passages of the urinary tract.

3. Those cases in which hematuria and oliguria are not relieved promptly by forcing fluids and alkali should lead to the recognition that the obstruction may be in the extrarenal urinary passages.

In these cases, the necessity of early cystoscopy and urethral intervention and drainage as a life-saving theurpeusis is emphasized.

4. The importance of exercising caution in administering even small doses of the drug to elderly individuals with chronic cardiovascular disease is stressed.

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IMMUNITY AND PROTEIN RESERVES

According to a recent presidential address before the American Association of Immunologists by Dr. Paul R. Cannon, the last two decades have seen the general acceptance of a new theory of specific antibody production with numerous practical applications to nutritional physiology in wartime.

Toward the close of the nineteenth century the accepted theory of specific immunity was based on Ehrlich's specific receptor hypothesis. This assumes that specific antibodies pre-exist as hereditary "receptors" or "side chains" in fixed tissue cells, from which they are given off as a result of contact with corresponding specific antigens. Accumulated clinical and experimental evidence eventually led to an almost unanimous discarding of this theory in favor of the concept that protective antibodies are newly formed chemical complexes, synthesized as a result of the action of normal intracellular enzymes. Antibodies were conceived to be acquired chemical characters, whose method of synthesis became a feasible problem in biochemical research.

Numerous biochemists became interested in this basic problem. Breinl and Haurowitz, of Czechoslovakia, proved through experimentation that the precipitating antibody is chemically identical with normal rabbit serum globulin except for the spatial arrangement of its constituent amino acids. From this it seemed evident that specific precipitins are normal serum globulins whose intracellular synthesis is modified by the "templating" action of the absorbed antigen. The locally synthesized "antigenic template" thus replaced the hereditary "cell receptor" of the earlier theory.

In his address Dr. Cannon reviewed the accumulated experimental evidence in support of the "template" theory, with additional evidence sug-

gesting that the "antigenic template" is synthesized from the intracellular protein reserves. Luck and others showed that a high protein diet leads to an increase in fixed tissue protein reserves with parallel increases in circulating serum globulin. A diminution in cytoplasm protein associated with decreased serum globulin as a result of low protein diets was demonstrated by Elman and Heifetz. These facts suggest the probable importance of a luxury protein diet for the maintenance of adequate "antibody matrix" (protein reserves) to serve as basic materials for specific antibody templation. If so, the immunologic potential of the reticulo-endothelial system, for example, would vary quantitatively with the amount of locally available protein reserve.

This suggested relationship is in line with statistical evidence covering the increased susceptibility to infectious diseases observed as a result of dietary insufficiency during the first World War. Dr. Cannon was able to confirm this relationship on experimental animals. Rabbits whose protein reserves had been reduced by low protein diets showed a distinctly subnormal capacity to produce specific antibodies.

The accumulated evidence in support of the relationship between protein reserves and specific immunity is of particular interest at present in view of the popular overemphasis of the role of vitamins in promoting antimicrobial resistance. There is a resulting popular underestimate of the basic importance of a luxury protein intake. Without more than enough protein to maintain nitrogenous equilibrium, antimicrobial vitamins are immunologically ineffective. In the words of Madden and Whipple, "The reserve store (of protein) is the bulwark against infection."—*J.A.M.A.*

GIRL MEDICAL STUDENTS ADVOCATED IN BRITAIN

The *New York Times* carried the following special cable from London on December 20:

"The British Medical Students Association adopted a resolution today advocating the admission on equal terms of women and men to all British medical schools.

"The resolution was adopted after strong opposition was expressed on the ground of the lack of accommodations for women. It was also contended that 35 per cent of the women admitted to practice ceased practicing after they have reached the age of thirty."

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., chairman (428 Greenwood Place, Syracuse); George Baehr, M.D.; and Charles D. Post, M.D.

Cancer Teaching Day

A **CANCER Teaching Day** will take place on Thursday, April 15, at the Academy of Medicine, 1441 East Avenue, Rochester, New York. The conference is presented under the combined auspices of the Medical Society of the County of Monroe, the Seventh District Branch of the Medical Society of the State of New York, the Rochester Academy of Medicine, the University of Rochester School of Medicine and Dentistry, the Tumor Clinic Association of the State of New York, the Medical Society of the State of New York, and the New York State Department of Health, Division of Cancer Control.

The meeting will be opened by G. Kirby Collier, M.D., president of the Monroe County Medical Society. J. Craig Potter, M.D., is chairman.

The program is as follows:

4:15 P.M.—“Care of the Advanced Cancer Patient,” by Norman Treves, M.D., instructor in surgery, Cornell University Medical College, and associate surgeon, Memorial Hospital, New York City.

“What May be Logically Expected from Pre- and Postoperative Radiation in Mammary Cancer,” by Fred W. Stewart, M.D., associate professor of surgical pathology, Cornell University

Medical College, and pathologist, Memorial Hospital, New York City.

6:30 P.M.—Dinner at the Academy of Medicine.

The evening meeting will be opened by John Aikman, M.D., president of the Rochester Academy of Medicine. Chairman of the meeting is Leo F. Simpson, M.D. The evening program will include:

8:00 P.M.—“Role of the Endocrine in Neoplastic Disease,” by Cornelius P. Rhoads, M.D., professor of pathology, Cornell University Medical College, and director, Memorial Hospital, New York City. “Diagnosis and Treatment of Prostatic Cancer,” by Charles B. Huggins, M.D., professor of surgical urology, University of Chicago, Chicago.

Members of the cancer committee of the Medical Society of the County of Monroe are: G. Kirby Collier, M.D., president of the Society, ex officio; J. Craig Potter, M.D., chairman; Leo F. Simpson, M.D., vice-chairman; and Lyman C. Boynton, M.D., Walter A. Calihan, M.D., William I. Dean, M.D., Andrew H. Dowdy, M.D., James M. Flynn, M.D., Donald C. Houghton, M.D., and John M. Swan, M.D.

Reservations for the dinner must be made in advance.

Sulfonamide Therapy

A **SERIES** of postgraduate courses in sulfonamide therapy are being held for the Tioga County Medical Society under the sponsorship of the Council on Public Health and Education of the State Medical Society, and the State Department of Health. The first lecture took place at 6:30 P.M. March 31, at Jenkins Inn, Waverly, New York. The subject was “Treatment of Pneumonia,” and the speaker was Walsh McDermott, M.D., instructor in medicine, Cornell University Medical College, New York City.

Other lectures, which were held at 6:30 P.M. in the Green Lantern Inn at Owego, New York, included:

April 7—“Gynecology in General Practice”

Nathan P. Sears, M.D., professor of gynecology, Syracuse University College of Medicine

April 14—“The Treatment of Genitourinary Infection”

Thomas F. Laurie, M.D., associate professor of clinical surgery (urology), Syracuse University College of Medicine

“The Treatment of Meningitis”
A. Clement Silverman, M.D., professor of clinical pediatrics, Syracuse University College of Medicine

War Medicine and Surgery

A **TEACHING Afternoon** on War Medicine and Surgery was presented March 25 for the St. Lawrence County Medical Society by the Council Committee on Public Health and Education of the Medical Society of the State of New York, and the State Department of Health, in cooperation with the Office of Civilian Defense and the Health Preparedness Commission of the State War Council. The meeting was held in the Hepburn Hospital Nurses’

Auditorium at Ogdensburg, New York, at 2:00 P.M.

The program included lectures on “The Care of Soft Tissue Injuries” by Frederick S. Wetherell, M.D., professor of clinical surgery, Syracuse University College of Medicine, and on “Plasma Therapy and Whole Blood Transfusion,” by Frederick N. Marty, M.D., instructor in clinical medicine, Syracuse University College of Medicine.

Teaching Day on Virus Diseases

MEMBERS of the Otsego County Medical Society were given postgraduate instruction in virus diseases at a Teaching Day held on Wednesday, March 24, at the Homer Folks Tuberculosis Hospital in Oneonta, New York. Speakers and subjects included:

4:00 P.M. "The Nature of Viruses"

Jerome T. Syvertson, M.D., associate professor of bacteriology, University of Rochester School of Medicine and Dentistry.

6:00 P.M. Dinner

8:00 P.M. "The Clinical and

tures of Primary . . .
Lawrence E. Young, M.D., instructor in medicine, University of Rochester School of Medicine and Dentistry, and Paul A. Lembcke, M.D., district state health officer and instructor in epidemiology and preventive medicine, University of Rochester School of Medicine and Dentistry.

Medical Aspects of Chemical Warfare

A TEACHING Day for physicians and nurses on "Medical Aspects of Chemical Warfare" was held at Syracuse University College of Medicine on Friday, April 9, 1943 from 2:00 p.m. to 5:00 p.m. in Room 116. This was a three-hour review session with discussion of new developments. This instruction was

presented by Syracuse University College of Medicine, in cooperation with the Health Preparedness Commission of the New York State War Council, the Medical Division of the Office of Civilian Defense, and the New York State Department of Health.

Plasma Therapy and Whole Blood Transfusion

AT A joint meeting of the Onondaga County Medical Society and the Syracuse Academy of Medicine, held on April 6, a lecture on "Plasma Therapy and Whole Blood Transfusion" was arranged by the New York State Department of Health and the State Medical Society.

The lecture was given by Earle B. Mahoney, M.D., assistant professor of surgery, University of Rochester School of Medicine and Dentistry. The meeting took place at 8:30 p.m. at the University Club in Syracuse.

On Wednesday, April 7, a postgraduate lecture on "Plasma Therapy and Whole Blood Transfusion" was given before the Saranac Lake Medical Society. The instruction, which took place in the John Black Room of the Saranac Laboratory in Saranac, was given by Frederick N. Marty, M.D., instructor in clinical medicine, Syracuse University College of Medicine, Syracuse. The program was presented through the cooperation of the Medical Society of the State of New York and the New York State Department of Health.

Sulfonamide Therapy

THROUGH the cooperation of the New York State Department of Health and the Medical Society of the State of New York, a postgraduate lecture on "Sulfonamide Therapy" was presented on April 7 for the Putnam County Medical Society.

Norman Plummer, M.D., assistant professor of clinical medicine, Cornell University Medical College, was the speaker. The meeting was held at 7:00 p.m. at the Gipsy Trail Club in Carmel, New York.

General Medicine

A POSTGRADUATE lecture on May 13 has been arranged for the Seneca County Medical Society by the Medical Society of the State of New York and the New York State Department of Health. The lecture, entitled "What We Do Know

About Vitamins," will be delivered by David K. Miller, M.D., professor of medicine, University of Buffalo School of Medicine. The meeting will take place at 2:00 p.m. at the Armitage Tea Room in Seneca Falls.

THE JOURNAL OF THE NATIONAL MALARIA SOCIETY

The first volume of a new journal devoted to malaria has just appeared. It is the official organ of the National Malaria Society, formerly the National Malaria Committee. It is to be made a quarterly of fifty pages as soon as financial support and sufficient material justify such action. The

first issue, which is the entire volume for 1942, contains some sixteen original contributions on various phases of the malaria problem. In view of the world-wide importance which is attached to control of malaria, this new journal will doubtless serve as a highly useful medium for disseminating information.

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. The members of the committee are Oliver W. H. Mitchell, M.D., chairman (428 Greenwood Place, Syracuse); George Baehr, M.D.; and Charles D. Post, M.D.

Cancer Teaching Day

A CANCER Teaching Day will take place on Thursday, April 15, at the Academy of Medicine, 1441 East Avenue, Rochester, New York. The conference is presented under the combined auspices of the Medical Society of the County of Monroe, the Seventh District Branch of the Medical Society of the State of New York, the Rochester Academy of Medicine, the University of Rochester School of Medicine and Dentistry, the Tumor Clinic Association of the State of New York, the Medical Society of the State of New York, and the New York State Department of Health, Division of Cancer Control.

The meeting will be opened by G. Kirby Collier, M.D., president of the Monroe County Medical Society. J. Craig Potter, M.D., is chairman.

The program is as follows:

4:15 P.M.—“Care of the Advanced Cancer Patient,” by Norman Treves, M.D., instructor in surgery, Cornell University Medical College, and associate surgeon, Memorial Hospital, New York City.

“What May be Logically Expected from Pre- and Postoperative Radiation in Mammary Cancer,” by Fred W. Stewart, M.D., associate professor of surgical pathology, Cornell University

Medical College, and pathologist, Memorial Hospital, New York City.

6:30 P.M.—Dinner at the Academy of Medicine.

The evening meeting will be opened by John Aikman, M.D., president of the Rochester Academy of Medicine. Chairman of the meeting is Leo F. Simpson, M.D. The evening program will include:

8:00 P.M.—“Role of the Endocrine in Neoplastic Disease,” by Cornelius P. Rhoads, M.D., professor of pathology, Cornell University Medical College, and director, Memorial Hospital, New York City. “Diagnosis and Treatment of Prostatic Cancer,” by Charles B. Huggins, M.D., professor of surgical urology, University of Chicago, Chicago.

Members of the cancer committee of the Medical Society of the County of Monroe are: G. Kirby Collier, M.D., president of the Society, ex officio; J. Craig Potter, M.D., chairman; Leo F. Simpson, M.D., vice-chairman; and Lyman C. Boynton, M.D., Walter A. Calihan, M.D., William I. Dean, M.D., Andrew H. Dowdy, M.D., James M. Flynn, M.D., Donald C. Houghton, M.D., and John M. Swan, M.D.

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April 14—“The Treatment of Genitourinary Infection”
Thomas F. Laurie, M.D., associate professor of clinical surgery (urology), Syracuse University College of Medicine
“The Treatment of Meningitis”
A. Clement Silverman, M.D., professor of clinical pediatrics, Syracuse University College of Medicine

War Medicine and Surgery

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Auditorium at Ogdensburg, New York, at 2:00 P.M.

The program included lectures on “The Care of Soft Tissue Injuries” by Frederick S. Wetherell, M.D., professor of clinical surgery, Syracuse University College of Medicine, and on “Plasma Therapy and Whole Blood Transfusion,” by Frederick N. Marty, M.D., instructor in clinical medicine, Syracuse University College of Medicine.

Honor Roll

Medical Society of the State of New York

Member Physicians in the Armed Forces

Supplementary List

The following list is the sixth supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, and March 15 issues—*Editor*

A

Amsel, V. R.
150 W 55 St., N Y C
Anderson, H. G.
220 5 Ave., Troy, N Y
Apfel, K.
1995 Creston Ave., Bronx, N Y
Appel, S. J.
2691 Reservoir Ave., Bronx N Y
Arnold, S. A.
Bay Shore, N. Y.

B

Barrett, J. V.
240 9 St., Troy, N Y
Beck, R. J.
18 Fairview St., Huntington, N Y
Becker, C. R.
149 Hoosick St., Troy, N Y
Bercovitz, Z.
30 E 72 St., N Y C
Bergen, C. T. (Capt.)
Camp Berkeley, Tex.
Berkovsky, M.
955 Walton Ave., Bronx, N Y
Bernstein, J. C.
Greenlawn, N Y
Bessey, C. E.
455 Pawling Ave., Troy, N Y
Bulchick, E. B.
876 Park Ave., N Y C
Bloomstein, H.
East Setauket, N Y
Blum, Morris
911 Walton Ave., Bronx, N Y
Bonner, H. C. (Lt.)
Amarillo, Tex.
Bradley, D. J.
Amityville, N.Y.
Bruenn, H. C.
Sampson, Geneva, N Y

C

Carlin, G. E.
Amityville, N Y
Casell, A.
2 Seaman Ave., N Y C
Chase, S. L.
115 E 61 St., N Y C
Chernack, M. J.
1018 E 163 St., Bronx, N Y
Chezar, H. H.
1935 Bryant Ave., Bronx, N Y
Christensen, B. E.
1212 Fifth Ave., N Y C
Church, G. T. (Maj.)
Camp Lee, Va.
Cimulora, A. L.
1 Wall St., Auburn, N Y
Coyne, M. J.
196 Genesee St., Utica, N Y
Crisillo, A. J.
760 E 236 St., Bronx, N Y

D

D'Angelo, J. V.
1091 Waring Ave., Bronx, N Y
Datri, F. J.
624 2 St., Brooklyn, N Y.
De Bono, M.
Copiague, N Y
Devitt, F. B.
18 Ford Ave., Oneonta, N.Y.
De Voe, A. G. (Capt.)
S.I., N.Y.

Diamond, H. D.
9320 Flatlands Ave., Brooklyn, N Y
Diamond, N.
30 S Long Beach, Freeport, N Y
Di Blanda, H. A.
722 E 231 St., Bronx, N Y
Di Gregorio, A. G.
4412 Carpenter Ave Bronx, N Y
Director, W.
2965 Valentine Ave., Bronx, N Y
Doroska, V. A.
Riverhead, N Y
Dorr, W. L.
507 Metcalf Bldg., Auburn N Y
Drysdale, C. E.
Northport, N Y

E

Edson, G. N.
33-25 84th St., Jack-on Heights, N Y
Elias, M. (Capt.)
Camp Stuart, Ga

F

Fallis, D.
161 Hempstead Ave., West Hempstead, N Y
Fischbach, K.
Park Central Hotel, N Y C
Fishman, I. F. (Capt.)
Camp Campbell, Ky
Fishof, F. E.
860 Grand Concourse, Bronx, N Y
Flessa, D. K.
Babylon, N Y
Flynn, J. B.
610 W 148 St., N Y C
Flynn, R. A.
4355 Martha Ave., Bronx, N Y
Fraad, L. M.
Fort Jackson, S C
Franco, A. A.
Hartwick, N Y
Frank, C. W.
1882 Grand Concourse, Bronx, N Y
Freston, J. M.
1009 Park Ave., N Y C
Fried, E. I.
1210 Wheeler Ave., Bronx, N Y
Friedenson, M.
711 Walton Ave., Bronx, N Y
Friedlander, H. S.
215 Mt Hope Pl., Bronx, N Y
Friedman, B. (Capt.)
Fort Benning, Ga
Friedman, B.
6 W 77 St., N Y C

G

Gabe, H.
1287 Shakespeare Ave., Bronx, N Y
Gale, J. P.
Lindenhurst, N Y
Gasper, W. J.
St Regis Falls, N Y
Geplert, J. R.
44 E 65 St., N Y C
German, D. P.
286 E. 2 St., N Y C.
Gibbons, J. M.
9 Cedar Dr., Great Neck, N Y.
Giganti, B. F.
797 Hart St., Brooklyn, N.Y.

Giuffre, J.
2551 Holland Ave., Bronx, N Y
Gold, A. M.
370 Central Park W., N Y C
Gold, B. J.
2206 Valentine Ave., Bronx, N Y
Goldberg, S. N.
1035 Grand Concourse, Bronx, N Y
Goldstein, P.
2001 Morris Ave., Bronx, N Y
Gomoll, O. E.
141 Genesee St., Auburn, N Y
Goodman, J. H.
3158 Perry Ave., Bronx, N Y
Gorbea, R. L.
102 Hamilton Pl., N Y C
Gordimer, H. C.
89 4 St., Troy, N Y
Gosselin, E.
405 Park Ave., N Y C
Gottheb, M. L.
1840 Grand Concourse Bronx, N Y.
Greenberg, H.
Lindenhurst, N Y
Greene, I.
911 E 176 St., Bronx, N Y
Greene, J. L.
23 W 11 St., N Y C
Gunther, W. A. (Lt.)
112-45 178 Pl., St Albans, N Y
Gurin, D. (Capt., M D T S)
Atlanta, Ga

H

Hanratta, E. J., Jr.
1433 1 Ave., Watervliet, N Y
Harkavy, J.
880 E 178 St., Bronx, N Y.
Harrigan, G. B.
Great Neck, N Y
Harrison, F. F. (Lt. Col)
Fort Jackson, S C
Haskell, H. G.
1828 5 Ave., Troy, N Y
Havill, W. H. (Lt. U S N R.)
185 Church St., New Haven, Conn
Heenan, J. T.
1499 Beach Ave., Bronx, N Y
Heldt, J. H. (Lt.)
Fort Sam Houston, Tex
Herzog, A. S.
1478 Walton Ave., Bronx, N Y
Hillenbrand, C. M. (Lt.)
Detroit, Mich
Hulse, W. C.
54 W 94 St., N Y C
Hurwitz, P.
2710 Morris Ave., Bronx, N Y

I

Imperato, R.
4361 Richardson Ave., Bronx, N Y.
Isaacson, B. (Capt.)
Atlanta, Ga
Isaacson, B.
911 Walton Ave., Bronx, N Y

J

Jaffe, I. A.
2039 Holland Ave., Bronx, N Y
James, W. M.
669 Tinton Ave., Bronx, N Y
Jampol, I.
1505 Grand Concourse, Bronx, N Y

Woman's Auxiliary

To the Medical Society of the State of New York

Annual Convention

Buffalo—May 2-5

Officers

President, Mrs. J. Emerson Noll, Port Jervis
President-Elect, Mrs. F. Leslie Sullivan, Scotia
First Vice-President, Mrs. William Lavelle, Long Island City
Second Vice-President, Mrs. Stanley P. Jones, Mattituck

Treasurer, Mrs. Louis A. Van Kleeck, Manhasset
Recording Secretary, Mrs. Carlton E. Wertz, Buffalo
Corresponding Secretary, Mrs. Travalin Omstead, Pearl River

The Annual Convention of the Woman's Auxiliary to the Medical Society of the State of New York will be held on May 2, 3, 4, 5, 1943, at the Hotel Statler, Buffalo. The headquarters will be in the Terrace Room.

All doctors' wives, whether members of a Woman's Auxiliary to a county medical society or not, are urged to register at the Registration Desk in the Foyer of the Terrace Room, and are cordially invited to participate in all parts of the program.

Program

Sunday, May 2

2:00 P.M.- Registration—Main Foyer of Hotel
5:00 P.M.

Monday, May 3

9:00 A.M.- Registration of delegates—Foyer of
12 Noon Terrace Room
9:00 A.M.- Registration of all doctors' wives—
5:00 P.M. Foyer of Terrace Room
9:00 A.M.- Registration for dinner (7:00 P.M.),
4:00 P.M. luncheon Tuesday (1:00 P.M.), and
tea Wednesday (3:30 P.M.)—Foyer
of Terrace Room
10:00 A.M.- Preconvention meeting—Terrace
12 Noon Room
1:00 P.M.- House of Delegates meeting—Terrace
4:00 P.M. Room
7:00 P.M. Annual Auxiliary Dinner

Tuesday, May 4

9:00 A.M. Registration, members and guests—
Foyer of Terrace Room
9:00 A.M.- Registration for luncheon (1:00 P.M.)
10:00 A.M. and tea Wednesday (3:30 P.M.)—
Foyer of Terrace Room
9:30 A.M.- House of Delegates meeting—Terrace
12 Noon Room
1:00 P.M. Luncheon (place to be announced)

Wednesday, May 5

9:00 A.M. Registration continued—Foyer of
Terrace Room
9:00 A.M.- Registration for tea (3:30 P.M.)—
12 Noon Foyer of Terrace Room
9:30 A.M.- Postconvention meeting of Executive
11:00 A.M. Board—Terrace Room
11:00 A.M.- Conference of County Presidents—
12 Noon Terrace Room
3:30 P.M. Tea (place to be announced)

New York State Nursing Council for War Service*

Bulletin No. 5 (March 19, 1943)

Progress in New York State's War Nursing Activities

1. Since December 10, 61 local councils have been formed in New York State. Make your local council a strong force for service to your community, your state, and your country at war. Your achievement will stimulate others.
2. The Office of Civilian Mobilization of the New York State War Council has planned for state-wide cooperation with our nursing councils through its block leader service, thanks to Mrs. Winthrop Pennock, director of the Office of Civilian Mobilization, and her assistant, Miss Katherine Olmsted, who is a member of the State Nursing Council for War Service.

Supply and Distribution Committees

Forty-eight Supply and Distribution Committees of local nursing councils are beginning a survey of hospital needs and resources. In most cases these surveys will be made by personal interviews. Although results are to be reported to the State Nursing Council, the real purpose of the survey is to provide information for the local councils and to aid them in seeing that community nursing needs are met. When sending in the survey forms, *please be sure that the name of the hospital is written at the top.*

Hand in hand with the survey goes the equally important work of bringing local inventory files up to date. The campaign now being carried out by local War Councils through their Block Leader service in house-to-house canvasses will, it is hoped, prove one more way of finding additional nurses. Since the real task is to make the greatest and wisest use of all available nursing power in every community, inactive nurses who now offer full- or part-time service should be referred to your local hospitals or agencies that need nurses. Nurses who are physically unable to do floor duty may often be used in the central supply room or in a clerical capacity. In some instances they are caring for the children of other nurses, releasing these mothers for a few hours of daily work in a hospital. Please let us know the ways in which formerly inactive nurses are being used in your community.

Your local survey may reveal causes of nurse shortage which can be corrected. The influence of your local nursing council should prove an effective means of bringing about desirable changes. Recent studies made by the State Nurses Association on salaries and personnel practices and their continued efforts to bring about changes where needed will strengthen your own efforts.

Attention is called to two recent articles in the *American Journal of Nursing* which will be of interest to all nurses and especially to Supply and Distribution Committees. One is Dr. Joseph Mountin's article, "Nursing—A Critical Analysis," in the January, 1943, issue, page 29; the other, "Salaries of General Staff Nurses," March, 1943, page 270.

Student Recruitment Committee

Reports now coming in indicate a good response to Open House Week held in many hospitals during February. The week of May 12 will again be designed

as Open House Week. The same kind of publicity recommended for use in February will be appropriate, with a few adjustments, for use in the May 12 program. Cooperation between Student Recruitment Chairmen and Publicity Chairmen will make possible timely publicity on current projects of the Student Recruitment Committee.

The planning for rallies or mass meetings is suggested as a means of stimulating public interest. Two such meetings have been conducted by the New York City Nursing Council for War Service with great success. The District 7 Nursing Council for War Service is participating in a mass meeting to be held on March 31 in Utica, at which the need for community cooperation in the nursing program will be stressed with particular emphasis on the need for scholarships. The Federation of Women's Clubs is sponsoring that program with the cooperation of the Nursing Council and the Red Cross.

Publicity Committees

Publicity Chairmen are asked to keep in close contact with other committee chairmen of their councils, seeking their suggestions for desirable publicity to aid their programs.

The use of a scrapbook of clippings and effective publicity projects will prove its value to Publicity Chairmen, not only as a means of showing what has been done but as a guide to future planning.

Have you planned any nursing exhibits for your community? There have been good exhibits in store windows, showing nurses in all manner of service uniforms; an exhibit of dolls in the uniforms of local hospitals; excellent exhibits of actual photographs of nurses in action; exhibits of publicity material, posters, pamphlets, magazine covers and articles; exhibits of nursing books and literature in libraries and high schools. Exhibits may be helpful in creating lay interest, stimulating recruitment for the war forces, and encouraging young women to enter schools of nursing. Do plan one or more nursing exhibits and let Miss Arnstein, the publicity chairman for the New York State Nursing Council for War Service, know about them.

Participation of Red Cross in Council Programs

While primarily carrying on a program aimed at recruiting nurses for the armed forces, volunteers for Nurses Aides, and the organization of Home Nursing Courses, the American Red Cross has also asked its representatives to cooperate with local nursing councils in all phases of their war nursing program. Although the responsibility for the student recruitment and supply and distribution program rests upon the nursing councils, the offer of Red Cross assistance has been effectively used by many councils, most of which have Red Cross representatives on their membership.

Progress Reports from Local to State Nursing Council

The long-felt need for a report from every local nursing council on its activities, plans, and suggestions for increased help from the State Nursing Council will be met through the use of the progress report forms which have now been supplied to chairmen of local nursing councils. The first report was requested for April 1; others at intervals of every two months thereafter.

* IMPORTANT NOTE: The monthly bulletin is prepared as a means of keeping you informed of the War Nursing Program. Back copies of Bulletins 3 and 4, which describe the general program, will be sent to chairmen upon request.

Johnson, W R
Cato, N Y
Jones, H M
Nat'l Bank Bldg, Auburn, N Y

K

Kaplan, S R
599 Rudgewood Ave, Brooklyn,
N Y
Keckeissen, F H
3250 Perry Ave, Bronx, N Y
Keenan, R J
1968 Morris Ave, Bronx, N Y
Koch, J M
1711 Morris Ave, Bronx, N Y
Kydd, D M
Mary Imogene Bassett Hosp,
Cooperstown, N Y

L

Lamanda, N J
711 E 230 St, Bronx, N Y
Lasko, J P
West Sand Lake, N Y
Lassman, S
40 E 72 St, N Y C
Laud, E R (Capt)
817 Emerson Ave, Elizabeth, N J
LaVine, J J (Lt, USNR)
Marine Recruiting Sta, 299 Broad-
way, N Y C
Lawrence, A W, Jr
Sea Cliff, N Y
Lazar, A E
287 E 167 St, Bronx, N Y
Lefkowitz, L
3764 63 St Woodside N Y
Lerner, P S (Lt, USNR)
Fleet Post Office c/o P M, N Y C
Levine, H S (Lt Com)
Portsmouth, Va
Levine, J (Lt)
Carlisle Barracks, Pa
Levinson, S J
1197 Grand Concourse, Bronx, N Y
Linden, A C (Lt Com)
Camp Peary Magruder, Williams-
burg, Va
Livingston, H H
19 W Moshulu Pkway N, Bronx,
N Y
Lohnes, J T, Jr
Valley Falls, N Y
Loizeaux, L S, Jr
4 E 88 St, N Y C
Lowy, M M
1518 Walton Ave, Bronx, N Y

M

Malzone, R J (Lt)
Camp Shanks, N Y
Manong, S T (Capt)
6039 Dorchester Ave, Chicago, Ill
Margold, A M
57 W 57 St, N Y C
Margulies, H L
2039 Gleason Ave, Bronx, N Y
Marshall, P
35-20 73 St, Jackson Heights,
N Y
Masur, J
Lebanon Hosp, Bronx, N Y
McAleese, J A
141 Connecticut Ave, Freeport
N Y
McCabe, E J
2 E 55 St, N Y C
McCarthy, E E
179 W Genesee St, Auburn, N Y
McIver, M A
Mary Imogene Bassett Hosp
Cooperstown, N Y
Messelman, M L (Lt)
2802 Clarendon Rd, c/o Pessman,
Brooklyn, N Y
Meister, E
Franklin Square, N Y
Melamed, S
2805 Grand Concourse, Bronx, N Y
Michelson, A
Valley Stream, N Y
Mistretta, I E
Rockville Centre, N Y
Molnoff, D D
Smithtown Branch, N Y
Morris, A
Texas City, Tex

Morrisett, L E
145 E 74 St, N Y C
Mouradian, J H (Capt)
A P O 634, c/o P.M., N Y C

N

Nadell, B B (Capt)
Fort Jackson, S C
Nevins, R C (Lt)
11 Quince St, Nantucket, Mass
Newcomb, W F
Homer, N Y
Nichols, F V
87 Glenn Ave, Sea Cliff N Y
Novek, J G (Lt)
263 Genesee St, Utica, N Y
Novikoff, S S
1018 E 163 St, Bronx, N Y

O

Oken, M H
1212 Grand Concourse Bronx N Y
Okoniewski, F L (Lt)
Birmingham, Ala
O'Neill, L D
State Hosp Central Islip N Y
Orton, R C (Lt)
Carlisle Barracks, Pa
Oxholm, C K
29 Ryerson St, Brooklyn N Y

P

Pasachoff, S S
910 Grand Concourse, Bronx N Y
Pattison, E H
213 Tulip Ave, Floral Park, N Y
Pearlman, A W
Hotel Taft N Y C
Perman, A H
1476 Townsend Ave Bronx, N Y
Petti, G H
750 E 236 St, Bronx, N Y
Pfaff, F O (Lt)
Fort Bliss Tex
Philips, H C
US Coast Guard Med, Mobile
Ala
Picciotti, J D (Lt Com)
249 Culver Rd, Rochester N Y
Pinkus, J B (Capt)
Camp Sibert, Ala
Planey, M R (Lt)
Carlisle Barracks, Pa
Poster, H
255 E 176 St, Bronx N Y
Pratt, G H
RFD No 1, Box 16 Far Hills,
N J

R

Rachlin, H L
220 Madison Ave N Y C
Rakov, D
Maybrook, N Y
Rancourt, C D
218 19 St, Watervliet, N Y
Rau, S
Amityville, N Y
Reed, G F
71 McElwain Ave, Cohoes, N Y
Regal, N
115 E 61 St, N Y C
Reyes, J G
791 Prospect Ave, Bronx N Y
Ritter, B
40 W 72 St N Y C
Robinson, J W
18 Woodworth Ave, Yonkers N Y
Rogati, G S
531 Arnow Ave, Bronx, N Y
Rogers, J A (Capt)
Camp Sutton, N C
Roodner, E E
2315 Walton Ave, Bronx, N Y
Rosen, C
Schoharie, N Y
Rosen, G
2801 Ave R, Brooklyn, N Y
Rosenthal, J
111 E 61 St, N Y C
Rosenthal, K
3161 Rochambeau Ave, Bronx
N Y
Rothman, H
1018 E 163 St, Bronx, N.Y.

Rubler, H (Lt)
A P O 77, Shreveport, La
Ryan, J W
45 Park Ter W, N Y C

S

Saland, E
3191 Rochambeau Ave, Bronx,
N Y
Sayet, M M
1700 Grand Concourse, Bronx, N Y
Seala, C J
1900 Bogart Ave, Bronx N Y
Schmidt, W D
Smithtown Branch, N Y
Schneerson, S J
840 Grand Concourse, Bronx, N Y
Schorr, R
1420 Grand Concourse, Bronx, N Y
Schrenk, F A
Chestertown, N Y
Schultz, L A
1044 Bryant Ave, Bronx, N Y
Schwartz, H
200 E 67 St, N Y C
Schwartz, Samuel (Capt)
1925 University Ave, Bronx N Y
Schwebel, W Z
100 3 St, Troy, N Y
Schwimmer, S
716 E 6 St, N Y C
Seiffer, B H
A P O 856, c/o P M, N Y C
Sherman, A A
1512 Townsend Ave, Bronx N Y
Sherman, S
1106 Morris Ave, Bronx, N Y
Siegel, S
1784 Bryant Ave, Bronx, N Y
Silverman, I
2726 Bedford Ave, Brooklyn N Y
Silvert, M (Lt)
San Antonio, Tex
Smith, K F
745 Fifth Ave, N Y C
Sokolove, C
3050 Richmond Ter, Mariner's
Harbor, S I, N Y
Soloway, D
Valley Stream, N Y
Sommers, S
2264 Creston Ave, Bronx, N Y
Stanford, H J
350 Seventh Ave, N Y C
Stansky, C (Capt)
912 N Peninsula Dr, Daytona
Beach, Fla
Stanton, E F
130 E 56 St, N Y C
Stein, S J
530 E 139 St, Bronx, N Y
Stenholz, S
Kings Co Hosp Brooklyn N Y
Stevens, R H
Tuckahoe, N Y
Stewart, W A
825 19 St, Watervliet, N Y
Stoner, W H
36 Orange St, Bloomfield, N J
Straatsma, C R
66 E 79 St, N Y C
Suter, G M
245 Alexander St, Rochester N Y
Sutro, C J (Maj)
911 Walton Ave, Bronx, N Y

T

Tatkov, N
630 Ave M, Brooklyn N Y
Tausend, S
1511 Sheridan Ave, Bronx, N Y
Thomas, R J
166 Genesee St, Auburn N Y
Titely, W B
Long Island Home, Amityville
N Y
Tretman, A
960 Grand Concourse, Bronx, N Y
Tutbill, P J
Mattituck, N Y
Tutrone, D A
64 Harding Pl, Freeport, N Y

U

Ulmar, D
150 E 52 St, N Y C

This change was necessary in order to have the bylaws comply with those of the State Society.

Cortland County

To relieve the shortage of doctors and trained nurses, the Cortland County Chapter of the American Red Cross has instituted a class for the training of individuals in caring for themselves.

Dutchess County

Drs. J. Wilson Poucher and Charles E. Lane, of Poughkeepsie, were honored at a testimonial dinner at the Nelson House on April 7 to celebrate their "sixty years in medicine."

Dr. Robert W. Andrews, headed the county society committee on arrangements, and the guest speaker was Dr. George W. Cottis, of Jamestown, president of the State Society. Others on the committee were Dr. Joseph L. Cummings, secretary; Dr. William A. Krieger, Dr. Clifford A. Crispell, and Dr. Archibald W. Thomson. Dr. Andrews acted as the toastmaster.*

Dr. Emil A. Stoller presided at the March meeting of the county society, which was held at the golf-house of the Hudson River State hospital. The scientific program featured a discussion of the progress of pediatrics, led by Dr. Bela Schick, of New York City. Dr. Schick was the originator of the Schick method of treatment of persons susceptible to diphtheria.

Dr. Scott Lord Smith led a talk on the postwar economic outlook.*

Dr. Frank Hacker, native of Vienna, Austria, but more recently of New York City, has opened an office in Beacon.

Dr. Hacker has come to Beacon on the recommendation of the Procurement and Assignment Service.*

Erie County

The county society met at the Hotel Statler in Buffalo on March 23. Dr. Frederick W. Filsinger was the speaker.

Genesee County

Dr. T. Murray Steele, of Batavia, formerly of Le Roy, has been elected to the American College of Surgeons.

A graduate of the University of Toronto in 1925, Dr. Steele served his internship at the Clifton Springs Sanitarium, Ontario County, and spent two and a half years doing accident surgery in the gold mining district of Timmins, Ontario. He then went to Le Roy, New York, and began the practice of medicine, remaining for eight years. He then returned to Toronto as an instructor in anatomy and surgery at the Toronto Medical School. While serving in this capacity he received the degree of Master of Surgery and a fellowship in the Royal College of Surgeons. Dr. Steele was also resident surgeon at the Toronto General Hospital and the Toronto Hospital for Sick Children.*

Jefferson County

The March meeting of the county society was held Thursday evening, March 11, at the Black River Valley Club.

Dinner was served at 6:30 p.m. Five-minute talks were given by members, including Drs. J. D. Olin, D. G. Gregor, L. E. Henderson, C. A. Prudhon, and H. L. Gokey. A colored film on sulfonamide therapy was shown.*

Kings County

The county society held a stated meeting on March 16, at which time Dr. George W. Cottis, president of the State Society, was the speaker. "Forecast of Postwar Medicine" was the title of his address.

On Saturday evening, March 6, about 30 neighborhood physicians gathered at Gregory's Restaurant in Brooklyn to honor Dr. Earl H. Mayne, of Bay Ridge Parkway, who is entering his fiftieth year of medical practice.

Dr. Mayne has spent all of these years in the Brooklyn section. In 1912, together with Drs. John McQuillin and Henry Bruning, he organized the Bay Ridge Sanitarium, later named the Bay Ridge Hospital, and has been its president since its organization.

Speeches of congratulation were made by Drs. Clifton Dance, Robert Ives, Herbert T. Wickle, Russell Fowler, John Masterson, Ross, McQuillin, and Bruning.*

Monroe County

Plea for proper placement of stutterers in military service was sounded by Dr. James Sonnett Greene, of New York City, in an address before the county society at the Academy of Medicine on March 16.

Stuttering, Dr. Greene declared, is merely a symptom of an underlying nervous condition that makes a man unfit for active combat duty, though he can be useful to the armed forces in limited service. Failure of draft boards to screen out those with impediments of speech, he said, has led to the breakdown of many of these inductees.

Dr. Greene is director of the National Hospital for Speech Disorders in New York City. He became interested in the treatment of stutterers when his first patient, to whom he was unable to offer encouragement, took his own life.*

New York County

"Medicine's Continuing Part in the War" was discussed by Dr. Frank H. Lahey at the March meeting of the county society.

Dr. Lahey is chairman of the Procurement and Assignment Service of Physicians, Dentists, and Veterinarians of the War Manpower Commission and director of the Lahey Clinic in Boston.

The New York Times of March 26 carried the following news item:

"The University of Pennsylvania Club of New York City will award the William Guggenheim Honor Cup to Dr. Josiah C. McCracken, who heads the Pennsylvania Medical School of St. John's University, Shanghai, China, at 7:00 p.m. today. Speakers will include Dr. Hu Shih, former Chinese Ambassador to the United States, and former Senator George Wharton Pepper."*

Dr. David D. Rutstein, of Albany, young cardiac specialist who has devoted himself to defense against

Medical News

International College of Surgeons Meets in June

THE Fourth International Assembly of the International College of Surgeons will be held on June 14, 15, and 16 at the Waldorf-Astoria Hotel in New York City, it is announced by Dr. Fred H. Albee, International President. The program will be devoted to war surgery and rehabilitation.

Delegations made up of prominent surgeons from the United Nations, in addition to those from other countries, are expected to attend. The United Nations representatives will give outstanding examples of the progress being made in war surgery and rehabilitation under battle conditions by their respective countries.

Dr. Manuel A. Manzanilla, of Mexico, and Professor Herman de las Casas, dean of the University of Caracas, Venezuela, who was appointed chairman of the Inter-American Exchange training activities, have been designated as chairmen of the program coordination for Central and South America. Dr. Rudolph Nissen, at present in New York City, will act for Europe.

The Rehabilitation Committee is composed of Drs. Fred H. Albee, of New York; William D. Ryan, of Detroit; and Custus Lee Hall, of Washington, D.C. Dr. William S. Bainbridge, of New York City, is chairman of the Military Affairs Committee. The Program Committee has as its chairman Dr. A. A. Berg, of New York City. Dr. Gustave Aufrecht is secretary of the Program Committee, and members of the College in Philadelphia, Plainfield, New Jersey, Columbus, Ohio, Denver, Washington, D.C., and Rochester, Minnesota, are also represented.

Dr. Charles Phillips, of New York City, is chairman of the arrangements Committee; Dr. Chester A. Peake, of Brooklyn, is chairman of the Exhibit Committee; and Dr. Milton Bodenheimer, of New York City, is chairman of the Publicity Committee.

Serving on the Publicity Committee with Dr. Bodenheimer are Drs. Max Thorek, of Chicago, and Dr. Edwin A. Griffin, of Brooklyn. Dr. Thorek is the International Executive Secretary.

Clinic to Serve Dutch Seamen

DR. FRANS E. VAN DER GUGTEN, chief medical officer of the Netherland Shipping Committee, who was named recently to take charge of a new merchant marine polyclinic at 61 Broadway in New York City, reports that work on the institution is progressing rapidly and that it will be opened to serve Netherland seamen soon.

The clinic will be responsible for the health problems of nearly 20,000 men serving under the Dutch flag, most of whom will eventually pass through the Port of New York. The institution is to have complete and modern facilities for diagnosis and outpatient treatment, and will have an arrangement with New York specialists and hospitals for additional treatment when required.

"The service," Dr. van der Gugten said, "is con-

sidered a very essential one for the proper maintenance of full health standards for the men on our ships. Before the war each individual steamship company had its own medical department at its home port, but since Holland was occupied by the Germans these have, of course, been unavailable. This handicap has been further complicated by the greater incidence of psychological problems brought on by the war, both through the men's lack of home contacts and the removal of customary means of obtaining consultation and treatment for minor ailments, causing bewilderment and mental distress."

The doctor graduated from the University of Leyden, and spent twenty-one years in Batavia, Java, and Sumatra as an instructor and a military surgeon.

County News

Albany County

Dr. Robert A. Hingson and Dr. Waldo B. Edwards, of the United States Marine Hospital, Staten Island, discussed the new "painless childbirth" method in obstetrics before a meeting of the county society in the Albany College of Pharmacy on March 24.

Dr. Hingson and Dr. Edwards, both past assistants of the U.S. Public Health service, described the results of a series of 600 cases which they studied and the continuous improvements made in methods of administration. In the 600 cases there were no maternal deaths or complications.*

Bronx County

An address on "Certain Practical Considerations in the Treatment of Traumatic Shock," by Comdr. L. R. Newhouser, M.C., U.S.N., with discussion by Drs. Samuel Gitlow and Thomas J. O'Kane, was

the feature of the scientific program at the regular meeting of the county society on March 17.

Broome County

At the March meeting of the county society the speaker was Dr. Eugene Pavlov, nephew of Ivan Pavlov.

At the February meeting the following motion was passed:

"That Section 2, Article XIII, of the Bylaws of the Broome County Medical Society be changed to read: 'All active members who have not paid their annual dues and State Assessment on or before the thirty-first day of May of each year shall be placed on the list of members in arrears for dues and assessments, and be so reported to the Society at the next regular meeting. Such members shall not receive publications, notices of meetings, malpractice defense, or any of the other privileges of membership until all dues and assessments are paid.'"

* Asterisk indicates that item is from local newspaper

The device these men chose for their seal was a lancet within the words St. Lawrence Medical Society. This was adopted in July, 1811. The society suspended its workings sometime in 1856, and the records were lost, and if it were not for the invaluable Dr. Hough's history, we should know little about the important organization previous to 1856. In 1864 some members of the old Society met and reorganized with Dr. Martin Parker, of Parishville, president."

Saratoga County

Consumption of raw milk is believed to have been the cause of an outbreak of at least 56 cases of severe sore throat which recently occurred in Ballston, according to an announcement by the State Department of Health. It was estimated that on the basis of the number of consumers of the suspected milk, 130 or more persons were affected.

Inquiry revealed that the milk supply of the patients was from a common source. Pasteurization of the supply was instituted immediately, and no additional cases have been reported with onsets occurring more than forty-eight hours after the pasteurization was begun.

The udder of one of the cows in the implicated herd was shown to be infected with hemolytic streptococci of the group causing infection in human beings, and a throat culture from the milker was found to contain hemolytic streptococci of the same group.

. . .

Dr. William H. Ordway has resigned as chief of the Emergency Medical service for Saratoga County and will be succeeded by Dr. Walter S. McClellan. Dr. McClellan is medical director at the Saratoga Spa and has been associated with Dr. Ordway in emergency work.*

Schenectady County

Dr. Louis P. Tischler, of Schenectady, has been appointed to the resident staff in gynecologic and obstetric service at Boston City Hospital. He will assume his new duties this month.

Dr. Tischler served his internship at Ellis Hospital and later was appointed resident assistant in surgery at that institution. He opened an office for private practice in Schenectady in 1935.*

Schoharie County

Jacob H. Enders, chairman of the County Board of Supervisors of Health Preparedness Commission, has announced the following complete committee, which will function and work with the New York State Health Preparedness Commission:

Dr. Joseph F. Duell, physician member of the county medical society; Dr. R. D. Champlin, district state health officer; Jacob H. Enders; Dr. M. M. Lee, health officer; Eugene F. Gorse, county commissioner of public welfare; George D. Ryder, member of the American Red Cross; Mrs. Anna L. Pick, member of the State Nurses' Association; Albert G. Munro, member of the Pharmaceutical Society; Dr. S. A. Scranton, member of the State Dental Society; Mrs. Frances B. Spencer, of the New York State Nutrition Committee; Dr. Ward L. Oliver, chairman of the County Infantile Paralysis Committee; Mrs. Olivia W. Van Aller, school nurse; Rev. C. Walter Kessler, chairman of the County Tuberculosis Association.

The state chairman of the commission is Assemblyman Lee B. Mailer, of New York City.

The objectives of the commission are to maintain adequate medical, nursing, and health facilities; to determine the availability of existing hospital facilities for civilian and military use in an emergency; to provide for the adequate supply of drugs, surgical supplies, and equipment; to safeguard municipal water supplies and sewage disposal systems; and to take care of other matters that concern the preservation of health.

All health preparedness committees are urged to make an immediate study of the objectives in their respective communities. Their findings are to be reported, with recommendations to the County War Council.*

Tioga County

The March meeting of the Medical Society of the County of Tioga was held at the Wagner Hotel, Waverly, at 7:00 p.m. on March 2. There were twelve members and guests present.

Dr. Johnson reported for the Committee on Medical Education that arrangements for a post-graduate course of three lectures were being completed. After discussion, it was agreed that two of these meetings be held in Owego and one in Waverly.

On regular motion it was voted that the name of the Medical Preparedness Committee be changed to the War Participation Committee, as recommended by the Council of the State Society.

A discussion of increased costs of compensation work was held, and the secretary was ordered to express to the State Society Compensation Committee the facts concerning increased expenses and an increased load of 25 per cent of such cases.

Discussion as to an increase in general fees was initiated by Dr. Brown. The president named Drs. Brown, Johnson, and Shaw as a committee to investigate the present fees and make recommendations.

Dr. Zoltowski introduced Dr. Earl Smith, of Elmira, who spoke to the society on "X-Ray Diagnosis of G-I Pathology."—Ivan N. Peterson, M.D., Secretary

Tompkins County

Nervous conditions associated with warfare was the subject of a lecture at a meeting of the county society in the College of Veterinary Medicine at Cornell University on March 16.

Dr. Foster Kennedy, professor of clinical medicine at the Cornell University Medical College in New York, was the speaker.

Warren County

Dr. J. W. Stevens, of Glens Falls, has been called to a defense plant in the Metropolitan area of New York to attend the firm's workmen in the event of accident or illness. He assumed the duties of his new post early in April.*

Westchester County

"Our First Ten Years" is the title of the following editorial in the March issue of the *Westchester Medical Bulletin*:

"Publication of the current issue of the *Westchester Medical Bulletin* marks the tenth year of continuous publication by the Society, and is our 120th consecutive monthly issue.

"Ten years ago the Medical Society of the County of Westchester was completely reorganized during

poison gas since the United States entered the war, has been appointed medical deputy commissioner of health, Health Commissioner Ernest L. Stebbins has announced. Dr. Rutstein will be in charge of the city's gas defense preparations, as well as the nutrition and industrial hygiene programs of the Department.*

Ontario County

"Penicillin," was the title of a paper by Dr. A. W. Armstrong at the March meeting of the Canandaigua Medical Society.

Now in experimental stages for medicinal purposes, penicillin is a substance made from the mold which grows in Roquefort and Camembert cheeses.

Dr. Margaret T. Ross, of Brigham Hall, president, was hostess to the society at this meeting. Dinner was served to fourteen guests.

Dr. John H. Pratt of Manchester, was host at the April meeting, at which Dr. Leon A. Stetson was the speaker.*

Otsego County

Dr. Charles Oberling, pathologist of the Mary Imogene Bassett Hospital in Cooperstown and director of the Otsego County laboratory, has accepted an invitation of the Iranian (Persian) government to be dean of the medical faculty of the University of Teheran and to act as adviser of the Iranian government in public health and hygiene. In accepting this appointment, Dr. Oberling will represent the national committee of the Fighting French.

Since Dr. Oberling has already spent two years in Iran, helping the Iranian government to reorganize its medical services, he is familiar with the medical needs and the public health problems of that country. The Iranian government has now made available adequate resources to put into effect plans which Dr. Oberling had formulated for the much-needed improvements in public health and medical education.

During the past winter Dr. Oberling lectured at the Bassett Hospital and in Albany on the health conditions in Iran. He described the appalling incidence of disease, the extreme ignorance and superstition of the population in public health matters, and the control of communicable disease.*

Queens County

The following program was presented at the stated meeting of the county society on March 30: "Symposium on Health Insurance," by Louis H. Pink, president of Associated Hospital Service and former Superintendent of Insurance for the State of New York; Frederic E. Elliott, M.D., secretary-treasurer of Medical Expense Fund of New York, Inc.; Kingsley Roberts, M.D., director of Group Health Cooperative, Inc.; Joseph Wrana, M.D.; and "Epidemic Keratoconjunctivitis," by W. Guernsey Frey, Jr., M.D., ophthalmologic surgeon, Manhattan Eye, Ear, and Throat, St. Luke's and St. John's (Long Island City) hospitals, and director of ophthalmology at Queens General Hospital.

* * *

The Friday Afternoon Talk on April 16 will be given by Dr. Girsch Astrachan, dermatologist and syphilologist at New York Post-Graduate Hospital, and associate dermatologist at Metropolitan Hospital in New York City. His subject will be "General Principles of the Treatment of Syphilis."

Rockland County

Dr. George Stone, Suffern physician, was recently elected a fellow of the American College of Surgeons for distinguished work in the field of general surgery. He was also recently made a fellow of the New York Academy of Medicine.*

St. Lawrence County

A luncheon meeting of the Medical Society of the County of St. Lawrence was held on March 18 at the St. Lawrence Social Club, Ogdensburg, at 12:15 p.m.

Two lectures, presented as a cooperative endeavor between the State Medical Society and the State Department of Health, were given in the nurses' auditorium of Hepburn Hospital at 2:00 p.m. The care of soft tissue injuries was discussed by Dr. Frederick S. Wetherall, professor of clinical surgery at Syracuse University. Dr. Frederick N. Marty, instructor in clinical medicine at Syracuse University, discussed plasma therapy and whole blood transfusion.*

* * *

On January 22 the *Potsdam Herald Recorder* published an article of local historical interest. It concerned Dr. Joseph Smith, the first physician in the county. Harriet Parker Rowland is the author. We reprint the article in part:

"Joseph Smith was born in Cheshire, Massachusetts, on February 22, 1781. Soon after his birth, his father removed to Addison, Vermont, where the child grew up. Joseph decided that he wished to be a physician and accordingly studied with one Dr. Ebenezer, in Vergennes, Vermont, and later went to Middlebury, where he completed his medical education with Dr. William Rose. In the following year, 1803, Dr. Smith came to Lisbon, New York. He was the first physician to settle in St. Lawrence County. He had not been there long when his practice began to spread, and soon included Madrid, Canton, and Oswegatchie.

"It is difficult now to realize the hardship of the doctor's life in those bygone days. Often he had to travel great distances, always through the forest. At best he might go on horseback, all of the materials of healing . . . packed in saddle bags. At worst he must travel, as Dr. Joseph sometimes did, on foot through the forest . . .

"Dr. Smith never spared himself when called to the sick and suffering . . . History tells us of one call he answered at night. He must go to Canton, eighteen miles away, and there was no path where a horse could pass . . . So he started on foot with a torchlight to help him find the way. After terrible exertion and with great fatigue he arrived safely in Canton and went quietly about the business for which he had come.

"Sometimes a patient was found to be too ill to be left and was carried to the doctor's home, put to bed in the old spool bed, and cared for by the doctor and his wife, as long as the need existed. . . .

"Since 'History is the memory of nations' may this tribute to Dr. Joseph Smith bear a small part in the memory of the pioneer heroes of St. Lawrence county.

"When the St. Lawrence County Medical Society was organized on October 14, 1807, Dr. Joseph Smith, who had by that time moved to Canton, was made president; I. W. Pier, vice-president; John W. Noble, secretary; B. Holmes, treasurer; John Seeley, Powell Davis, and B. Holmes, censors.

Hospital News

Symposium on Civilian Hospitals in Wartime

A SYMPOSIUM on civilian hospitals in wartime was conducted by the United Hospital Fund of New York in cooperation with the Greater New York Hospital Association and the New York Academy of Medicine in the Hotel Waldorf-Astoria on March 29 and 30.

At the first session Dr. Harvey B. Stone, professor of clinical surgery at Johns Hopkins Medical School, discussed "Methods of Providing Medical Personnel for the Armed Forces, Civilian Hospitals, and the Community." Dr. David P. Barr, professor of medicine at Cornell University Medical College, and Dr. J. R. Clemmons, director of the Roosevelt Hospital, spoke on the same subject.

"Wartime Difficulties of Providing Adequate Hospital Service" was the title of an address by John H. Hayes, superintendent of the Lenox Hill Hospital and Dispensary, and John F. McCormack, superintendent of the Presbyterian Hospital.

At the second session Margaret E. Conrad, director of nursing at the Presbyterian Hospital, and Sister Loretto Bernard, superintendent of St. Vincent's Hospital, spoke on "The Loss of Nursing Personnel and the Problem of Replacement." Mrs. Edith G. Seltzer, consultant on medical social service of the Fund, and Dr. Thomas D. Dublin, associate professor of preventive medicine and community health, Long Island College of Medicine, discussed "Medical Social Service in Wartime." "Social Services in England" were described by Ruth Taylor, Westchester County Commissioner of Public Welfare.

At the final session Dr. Nathaniel W. Faxon, director of the Massachusetts General Hospital, and Dr. Edward M. Bernecker, Commissioner of Hospitals, gave addresses, both entitled "Catastrophe on the Home Front." Thomas W. Lamont opened the session with an address on postwar medicine.

Hospital Trains

IN AN article published in *The Modern Hospital*, Lt. Col. Thomas N. Page, of the U.S. Army Medical Corps, has given a graphic description of the newly set-up Army hospital trains, designed and equipped at the order of the Surgeon General of the Army. Through the collaboration of Army medical corps officers and officials of the Pullman Company, a fifteen-car train was designed, including the following facilities:

1. Two ward cars to provide space for 64 bed patients.
2. A unit car with kitchen capable of messing 500.
3. A unit car with dressing room completely equipped.
4. Train detachment to be quartered in standard Pullmans.
5. Seats and berths for approximately 260 walking sick and wounded patients to be furnished in standard Pullmans.
6. One baggage car for supplies and equipment.
7. A unit car with berth and office space for the train surgeon.
8. Large double doors in both sides of every car for ease in loading litters.

The total train capacity (minimum) is 4 officers, 6 nurses, 33 enlisted men, and 324 patients.

A second order from the Surgeon General called for a reduction of equipment because of the lack of certain necessary materials, and as a result plans were altered, with standard diners substituted for the unit car. At the same time arrangements were made to increase the space for bed patients so that a minimum of 90 could be accommodated.

"The train that was designed comprised fifteen cars, including one ward car modified to provide 30 berths . . . and a dressing room with complete equipment; two ward cars providing berths for 32 bed patients each; a standard dining car to provide messing for approximately 300 patients; a standard Pullman car to quarter the train detachment; a standard Pullman car to provide berths and seats for approximately 225 walking sick and wounded patients; a baggage car for equipment and supplies, and office space for the train surgeon."

Both trains are completely equipped for emergency measures and have in a compact space the facilities of a modern hospital.

Improvements

Dr. A. J. Rongy, gynecologist, has been appointed chairman of the Joint Campaign Committee of Physicians of Lebanon and Women of Lebanon, which is the first section of the \$275,000 Lebanon Hospital Building Fund Campaign to start functioning. Dr. Rongy has been connected with the hospital since 1900.

The fund will be used to furnish and equip the new \$2,000,000 hospital building at Grand Concourse and Mount Eden Parkway, the Bronx.*

It is equipped with an ultraviolet and bacteria light, and is large enough to accommodate twins.

A short time ago, the auxiliary furnished a new admission room with desk, lamp, and chairs.*

. . .

The Rochester Hospital Service Corporation, which enrolls as members of the plan many citizens of the community, has moved to its new home at 41 Chestnut Street, Rochester.*

. . .

The woman's auxiliary of the North Country Community Hospital in Glen Cove has presented that institution with an incubator, 1944 model.

The Herkimer Memorial Hospital in Herkimer has received twelve pieces of property with an assessed valuation of \$21,500 as a bequest from the estate of the late C. B. Root to the institution's endowment fund.

* Asterisk indicates that item is from local newspaper.

the presidency of Dr. Andrew A. Eggston. During that year a permanent executive secretary was engaged in the person of Mr. James E. Bryan, and the publication of the *Bulletin* in approximately its present form was commenced, with Mr. Bryan as its managing editor and with the late Dr. Henry T. Kelly as its editor. The work begun by Dr. Eggston was carried on successfully in 1934 by Dr. Mortimer W. Raynor; in 1935 by Dr. Harrison Betts; 1936, Dr. Theodore West; 1937, Dr. Morley T. Smith; 1938, Dr. Erich H. Restin; 1939, Dr. Ralph T. B. Todd; 1940, Dr. Henry J. Vier; 1941, Dr. Reginald A. Higgins; and 1942 and 1943, Dr. George C. Adie.

"During these years and under the leadership of such men the Society has continued to flourish, has grown slowly but steadily in size, and has exerted its influence continuously to uphold in the County of Westchester the highest standards of medical practice.

"Those years have seen the expansion of the social welfare work commenced in the county under the leadership of V. Everit Macy and the

integration of public medical practice with the expanding department of public welfare. Those years have seen pioneer experimental work conducted by continuous conference between the department and the Society under the well-balanced and sympathetic leadership of Miss Ruth Taylor, and it is safe to say that at least some of this work has influenced the trend of public medical care throughout the state.

"Under the guidance of its editorial board and its managing editor, the *Bulletin* of the Medical Society of the County of Westchester has been received favorably not only in the county and the state, but throughout the United States. It has perhaps been a factor in welding the opinion of the Society and in achieving for the Society a certain strength which derives from unity of thought and opinion.

"Ten years is not a long time but it is a good beginning.

"Through a liberal and foresighted editorial policy it has sought to assure for organized medicine a place of leadership in the social complex of the past decade."

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
James Birkhead	70	P. & S., N.Y.	March 16	Schenectady
John W. Blackett	69	McGill	March 21	Fort Covington
Walter E. Boehm	46	Breslau	January 6	Richmond Hill
Vincent P. Capodici	62	Naples	March 3	Brooklyn
Francis L. Donlon	75	Bellevue	March 24	Bronx
William G. Exton	67	P. & S., N.Y.	March 12	Manhattan
Fritz Faltitschek	48	Vienna	January 20	Manhattan
Fred C. Harms	64	Univ. & Bell.	February 15	Saugerties
Thomas J. Harris	77	Pennsylvania	March 14	Manhattan
Edward A. Keyes	57	L.I.C. Hosp.	March 16	Brooklyn
John Lennon	75	Bellevue	January 14	Manhattan
Leopold Lichtwitz	66	Munich	March 18	Manhattan
Charles I. Loeble	55	Albany	February 3	Brooklyn
John O. Logan	68	P. & S., N.Y.	January 30	Manhattan
Grant C. Madill	78	Bellevue	March 26	Ogdensburg
Ernest B. McAndrew	47	Buffalo	March 15	Corning
N. Sanford Messenger	90	Buffalo	March 4	Elmira
Jackson M. Mills	78	Nashville	March 18	Manhattan
Marion C. Potter	79	Michigan	March 23	Rochester
Edgar Rood	90	Buffalo	March 7	Westfield
Irving Sherman	43	Tufts	January 24	Brooklyn
Charles H. Siegelman	52	L.I.C. Hosp.	March 11	Manhattan
Charles W. Stevens	75	P. & S., N.Y.	March 15	Manhattan
George E. Stevenson	72	Baltimore Med.	March 20	Penn Yan
LeRoy R. Stoddard	66	N.Y. Hom.	March 18	Manhattan
Sherman C. Sweeting	77	Hahne., Chicago	March 18	Pavilion
Roscoe C. Tarbell	67	Syracuse	March 8	Groton
Paul V. Winslow	59	Albany	March 12	Manhattan

In the lists of "Deaths of New York State Physicians" in the April 1 issue of the *JOURNAL* the name of Dr. Edward Herzog, of Long Island City, was included by mistake.—Editor

Hospital News

Symposium on Civilian Hospitals in Wartime

A SYMPOSIUM on civilian hospitals in wartime was conducted by the United Hospital Fund of New York in cooperation with the Greater New York Hospital Association and the New York Academy of Medicine in the Hotel Waldorf-Astoria on March 29 and 30.

At the first session Dr. Harvey B. Stone, professor of clinical surgery at Johns Hopkins Medical School, discussed "Methods of Providing Medical Personnel for the Armed Forces, Civilian Hospitals, and the Community." Dr. David P. Barr, professor of medicine at Cornell University Medical College, and Dr. J. R. Crammons, director of the Roosevelt Hospital, spoke on the same subject.

"Wartime Difficulties of Providing Adequate Hospital Services" was the title of an address by John H. Hayes, superintendent of the Lenox Hill Hospital and Dispensary, and John F. McCormack, superintendent of the Presbyterian Hospital.

At the second session Margaret E. Conrad, director of nursing at the Presbyterian Hospital, and Sister Loretto Bernard, superintendent of St. Vincent's Hospital, spoke on "The Loss of Nursing Personnel and the Problem of Replacement." Mrs. Edith G. Seltzer, consultant on medical social service of the Fund, and Dr. Thomas D. Dublin, associate professor of preventive medicine and community health, Long Island College of Medicine, discussed "Medical Social Service in Wartime." "Social Services in England" were described by Ruth Taylor, Westchester County Commissioner of Public Welfare.

At the final session Dr. Nathaniel W. Faxon, director of the Massachusetts General Hospital, and Dr. Edward M. Bernecker, Commissioner of Hospitals, gave addresses, both entitled "Catastrophe on the Home Front." Thomas W. Lamont opened the session with an address on postwar medicine.

Hospital Trains

IN AN article published in *The Modern Hospital* Lt. Col. Thomas N. Page, of the U.S. Army Medical Corps, has given a graphic description of the newly set-up Army hospital trains, designed and equipped at the order of the Surgeon General of the Army. Through the collaboration of Army medical corps officers and officials of the Pullman Company, a fifteen-car train was designed, including the following facilities:

1. Two ward cars to provide space for 64 bed patients.
2. A unit car with kitchen capable of messing 500.
3. A unit car with dressing room completely equipped.
4. Train detachment to be quartered in standard Pullman.
5. Seats and berths for approximately 260 walking sick and wounded patients to be furnished in standard Pullman.
6. One baggage car for supplies and equipment.
7. A unit car with berth and office space for the train surgeon.
8. Large double doors in both sides of every car for ease in loading litter.

The total train capacity (minimum) is 4 officers, 6 nurses, 13 enlisted men, and 524 patients.

A second order from the Surgeon General called for a reduction of equipment because of the lack of certain necessary materials, and as a result plans were altered, with standard diners substituted for the unit car. At the same time arrangements were made to increase the space for bed patients so that a minimum of 90 could be accommodated.

"The train that was designed comprised fifteen cars, including one ward car modified to provide 30 berths . . . and a dressing room with complete equipment; two ward cars providing berths for 32 bed patients each; a standard dining car to provide messing for approximately 300 patients; a standard Pullman car to quarter the train detachment; a standard Pullman car to provide berths and seats for approximately 225 walking sick and wounded patients; a baggage car for equipment and supplies, and office space for the train surgeon."

Both trains are completely equipped for emergency measures and have in a compact space the facilities of a modern hospital.

Improvements

Dr. A. J. Rongy, gynecologist, has been appointed chairman of the Joint Campaign Committee of Physicians of Lebanon and Women of Lebanon, which is the first section of the \$275,000 Lebanon Hospital Building Fund Campaign to start functioning. Dr. Rongy has been connected with the hospital since 1900.

The fund will be used to furnish and equip the new \$2,600,000 hospital building at Grand Concourse and Mount Eden Parkway, the Bronx.*

It is equipped with an ultraviolet and bacteria light, and is large enough to accommodate twins.

A short time ago, the auxiliary furnished a new admission room with desk, lamp, and chairs.*

The Rochester Hospital Service Corporation, which enrolls as members of the plan many citizens of the community, has moved to its new home at 41 Chestnut Street, Rochester.*

The women's auxiliary of the North Country Community Hospital in Glen Cove has presented that institution with an incubator, 1944 model.

* Asterisk indicates that item is from local newspaper.

The Herkimer Memorial Hospital in Herkimer has received twelve pieces of property with an assessed valuation of \$21,500 as a bequest from the estate of the late C. B. Root to the institution's endowment fund.

the presidency of Dr. Andrew A. Eggston. During that year a permanent executive secretary was engaged in the person of Mr. James E. Bryan, and the publication of the *Bulletin* in approximately its present form was commenced, with Mr. Bryan as its managing editor and with the late Dr. Henry T. Kelly as its editor. The work begun by Dr. Eggston was carried on successfully in 1934 by Dr. Mortimer W. Raynor; in 1935 by Dr. Harrison Betts; 1936, Dr. Theodore West; 1937, Dr. Morley T. Smith; 1938, Dr. Erich H. Restin; 1939, Dr. Ralph T. B. Todd; 1940, Dr. Henry J. Vier; 1941, Dr. Reginald A. Higgins; and 1942 and 1943, Dr. George C. Adie.

"During these years and under the leadership of such men the Society has continued to flourish, has grown slowly but steadily in size, and has exerted its influence continuously to uphold in the County of Westchester the highest standards of medical practice.

"Those years have seen the expansion of the social welfare work commenced in the county under the leadership of V. Everit Macy and the

integration of public medical practice with the expanding department of public welfare. Those years have seen pioneer experimental work conducted by continuous conference between the department and the Society under the well-balanced and sympathetic leadership of Miss Ruth Taylor, and it is safe to say that at least some of this work has influenced the trend of public medical care throughout the state.

"Under the guidance of its editorial board and its managing editor, the *Bulletin* of the Medical Society of the County of Westchester has been received favorably not only in the county and the state, but throughout the United States. It has perhaps been a factor in welding the opinion of the Society and in achieving for the Society a certain strength which derives from unity of thought and opinion.

"Ten years is not a long time but it is a good beginning.

"Through a liberal and foresighted editorial policy it has sought to assure for organized medicine a place of leadership in the social complex of the past decade."

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
James Birkhead	70	P. & S., N.Y.	March 16	Schenectady
John W. Blackett	69	McGill	March 21	Fort Covington
Walter E. Boehm	46	Breslau	January 6	Richmond Hill
Vincent P. Capodici	62	Naples	March 3	Brooklyn
Francis L. Donlon	75	Bellevue	March 24	Bronx
William G. Exton	67	P. & S., N.Y.	March 12	Manhattan
Fritz Faltitschek	48	Vienna	January 20	Manhattan
Fred C. Harms	64	Univ. & Bell.	February 15	Saugerties
Thomas J. Harris	77	Pennsylvania	March 14	Manhattan
Edward A. Keyes	57	L.I.C. Hosp.	March 16	Brooklyn
John Lennon	75	Bellevue	January 14	Manhattan
Leopold Lichtwitz	66	Munich	March 18	Manhattan
Charles I. Loebke	55	Albany	February 3	Brooklyn
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Two hundred and fifty hospital corpsmen—the first “pharmacist’s mates” of the United States Merchant Marine—completed a three-month course at the United States Maritime Service Training Station at Sheepshead Bay, Brooklyn, in March.

For the first time organized medical care will be provided merchant seamen on cargo ships by the hospital corpsmen, whose training, according to the War Shipping Administration in Washington, is comparable to that of pharmacist’s mates in the United States Navy.

Student corpsmen must be apprentice seamen, 25 years old or under, with four years of high-school education and five weeks of preliminary seaman training.

The course of study, which began in December, includes lectures, films, and field trips to Bellevue Hospital operating rooms and surgical wards, the New York Morgue, the Ward’s Island sewage disposal plant, the Willard Parker Hospital Serological Laboratories, the New York City pathologic laboratories, New York Medical College, and the Flower-Fifth Avenue Hospital.

The corpsmen are assigned to United States Marine and United States Public Health Service hospitals for practical experience before they are made medical petty officers on merchant ships.*

James King & Sons, Inc., Manhattan contractors, builders of the Halloran General Hospital at Willow Brook, Staten Island, the largest Army hospital in the United States, have received the Army-Navy E.*

The City Hospital Alumni Society has established the James R. Lisa Award for outstanding research done in the laboratories of the hospital under Dr. Lisa’s direction. Drs. Douglas Symmers, Oswald T. Avery, and James R. Lisa have been named a permanent self-perpetuating committee in charge of this award.

The Wyoming County Board of Supervisors has approved a contract whereby the Genesee County Laboratory will do the pathology for the Wyoming Community Hospital at Warsaw.

Donald M. Gray, chairman of the Genesee County Laboratory Commission, described the agreement as a nonprofit contract under which Wyoming County will pay its proportionate share of the pathologist’s salary, and since the pathologist is employed by Genesee County, it will result in a reduction of costs to the latter.

The plan will become operative on the approval of the New York State Department of Health at Albany.

“Calling all doctors”—or anyone else who is wanted immediately—is the latest innovation at Wyckoff Heights Hospital in Ridgewood, with the installation of an audible paging system. Anyone connected with the hospital can now be called from the switchboard and the name will be repeated by the “speaker” in each corridor of the main building and in every building on the grounds.

As a further measure to deal with an emergency, a transmitter has been installed in the private office

of Superintendent Louis Schenkweiler, which, in an emergency, can become headquarters for the quick calling together of a large number of the hospital staff. There is also an outside telephone and a radio in the superintendent’s office for keeping in touch with developments in the event of an emergency and for directing the hospital’s personnel to cope with it.*

Ward secretaries of the Wilson Memorial Hospital in Johnson City have relieved staff nurses of 1,080 hours of work in the last two months. These volunteers have taken over the record and book-keeping work that is ordinarily performed by nurses in laboratories, kitchens, drug rooms, storerooms, and record departments. The ward secretaries work in three-hour shifts five days a week.

Three Paris hospitals, Beaujon, Lariboisiere, and La Pitie, comprising 3,280 beds, have been requisitioned by the German authorities, according to a recent release, “Public Health Under Hitler’s Rule,” from the British press service. Owing to the creation of temporary hospitals, the release states, Paris patients still dispose of 36,800 hospital beds....

Few Parisians go to hospitals these days except in the last extremity because food cards must be deposited upon entering the hospital and interminable formalities are required to get them back on leaving. British patients remaining in Paris are cared for at Val-de-Grace Hospital, and Jewish patients at the Rothschild Foundation.

Among the other difficulties suffered by Paris hospitals is the lack of ambulances. Patients are brought in with the help of the police first aid and for the return journey they are grouped in the same ambulance, which makes a round trip, like a motor bus.

Although no general mortality rates have been released, it has been revealed that the annual rate of deaths at Cochin Hospital has increased from 1,200 to 1,400. Tuberculosis is said to have doubled among 6- to 8-year-old children and in the 18- to 25-year age group.—*The Modern Hospital*.

A service flag for 900 physicians, nurses, and other employees of Bellevue Hospital now in the armed forces was dedicated on March 12.

The New York Women’s Division of the National Jewish Hospital at Denver, Colorado, has opened its annual bundle campaign for the benefit of its Bargain Shop, 1281 Third Avenue, Manhattan. All kinds of merchandise are solicited. The campaign will continue through May 15.

The fiftieth anniversary of the Bushwick Hospital in Brooklyn was celebrated on March 6 with a dinner-dance in the Towers Hotel. More than 400 people participated in the festivities.

Appreciation for the gift, to be known as the "C. B. and Ada H. Root Endowment Fund," was expressed in a resolution of acceptance adopted by the directors, with instructions that a copy be sent to Mrs. Root, who is vice-president of the hospital.*

. . .

Work on an addition to the Brooks Memorial Hospital in Dunkirk, to cost \$144,000, has been commenced.

. . .

A federal grant of \$290,700 has been approved for the adding of facilities to Mercy Hospital in Rockville Centre, to care for needs of war workers.

Provisions call for emergency construction of a wing to be reached by a tunnel. The new facilities will accommodate 60 adult patients and will include 60 bassinets.*

. . .

The new addition to Mercy Hospital in Watertown was dedicated and opened on March 19.

At the Helm

Three new directors have been added to the Herkimer Memorial Hospital Board. They are Mrs. George R. Gallinger, D. Bennett Rasbach, and Palmer W. Gloo, each to serve for a term of five years. In addition, C. Harry Snell and Ross E. Sluyter, whose terms have expired, have been re-named.

A memorial to James H. Walrad, one of the original directors, who died in March, was incorporated in the minutes of the annual meeting of the board and a copy was sent to the Walrad family.*

. . .

Mrs. Elinore M. Herrick, director of personnel and labor relations of the Todd Shipyard Corporation, and Dr. Ralph T. B. Todd, of Tarrytown, have been appointed members of the board of the Associated Hospital Service of New York.

. . .

The Hospital for Joint Diseases in New York City has announced the following promotions in staff positions: George J. Ginandes, attending pediatrician; Theodore T. Fox, associate physician; Sidney A. Fox, associate ophthalmologist; Selian Hebbald, associate physician in allergy; Emanuel B. Kaplan, associate orthopaedic surgeon.

. . .

Lewis Webb, superintendent of St. Luke's Hospital for the past twenty-one years, tendered his resignation to the hospital's board of managers at their annual meeting and retired on April 1.

The board of managers appointed Carl Willmsen, proprietor of the Palatine Hotel, to serve as superintendent.*

. . .

Dr. Luvia Willard has been elected president of the medical board of Jamaica Hospital, the first woman to hold this post at the institution.

Dr. Willard has been associated with the hospital since 1912 and has filled several offices on the board, having served as its vice-president last year.*

. . .

W. W. Smith, president of the board of directors of the Alice Hyde Hospital in Malone, has been appointed superintendent and business manager of the hospital.

Miss Isabel M. Reardon, of Stroudsburg, Pennsylvania, has been named assistant superintendent and directress of nurses.*

. . .

Arthur Lathrop Zerbey was elected president of Mount Vernon Hospital, in Mount Vernon, at an annual meeting of the Board of Managers, to succeed Norman D. Ellison, who has completed four years as head of the institution.

Other officers elected were Richard M. Winfield, Harold B. Storms, and Charles A. Bird, vice-presidents; Mrs. Walter H. McNeill, Jr., secretary, and Vernon F. McClellan, treasurer.*

Newsy Notes

To meet the minimum civilian and military needs, 65,000 women must be enrolled in nursing schools between June 30, 1943, and July 1, 1944. This figure exceeds the 1942-1943 quota by 10,000.

In addition to student nurses, auxiliary hospital workers must also be trained, and, in accordance with an agreement made by Washington committees on hospitals and nurses, institutions must train their own employees.

Job instructor training for hospitals can be arranged through government agencies.

. . .

In an article in *The Modern Hospital* entitled "Do Normal Maternity Cases Require Ten Days in the Hospital?" Dr. Benjamin W. Black describes the system used in the Highland-Alameda County Hospital in Oakland, California.

According to Dr. Black, an increased load of maternity cases in the past few years has made it necessary for authorities to shorten the hospital stay whenever possible. "It was determined," he says, "that patients would be received in the hospital for delivery service primarily and that they would be discharged when the condition of mother and child permitted; the earliest day of discharge was on the fourth."

After a three-year trial, a study was made of 3,400 patients who had been hospitalized but a short time, and in no case were complications found to be due to the brevity of the hospital stay. Continued studies support these original findings.

As Dr. Black points out, present-day overtaxing of hospital facilities may make the widespread adoption of this plan necessary.

. . .

Health News

The following "Special Warning Bulletin" has been prepared jointly by the United States Public Health Service and the Committee on Ophthalmology of the American Medical Association.—Editor

SUBJECT: Epidemic Keratoconjunctivitis

Incubation period: Five to ten days.

Clinical Manifestations.—The onset may be preceded by a low fever and mild generalized malaise. The local ocular symptoms are merely those of a foreign body or conjunctival irritation. One eye is usually affected first, and in a large percentage of cases the second eye becomes infected within five to eight days. Preauricular and submaxillary glandular involvement with tenderness is common in a high percentage of cases.

Edema of the lids and the conjunctiva, especially the transitional fold, is very frequent. The conjunctiva presents the appearance of a simple purulent conjunctivitis but with little or no formation of pus. Small areas of pseudomembrane are not infrequent and when removed leave either small, white, dotted points or some bleeding points. The bulbar conjunctiva becomes edematous early. At this stage, there is some lacrimation and photophobia, but real pain and blepharospasm do not appear until the cornea becomes involved.

The percentage of cases in which corneal involvement occurs varies from 50 to 90 per cent. In six to twelve days after the conjunctivitis appears, the cornea becomes involved by the appearance of discrete gray infiltrates that lie in and immediately under the epithelial layer of the cornea. They may be confined to the periphery of the cornea but in a large percentage of cases they involve the pupillary area of the cornea directly. These infiltrates are discrete and seldom become complicated by an erosion of the corneal epithelium with resultant staining with fluorescein. The extent of visual impairment depends upon the number of infiltrates and their location.

Clinical Course.—The disease is self-limited. In the majority of instances, the conjunctivitis disappears spontaneously in fourteen to eighteen days. The corneal complications may disappear in seven days or may last for many months. The longer they persist, the greater is the danger of permanent visual impairment.

Laboratory Findings.—Scrapings of the conjunctiva show a preponderance of monocytes. Cultures and smears are either negative or show the usual contaminations.

Treatment.—There is no specific treatment that has shown a definite influence upon the course of the disease. During the acute stage the eyes should be kept clean with irrigations of boric acid, normal saline, or 1,000 to 5,000 oxycyanid of mercury. If there is much photophobia, 1 per cent holocaine may be instilled at frequent intervals. Five per cent sulfathiazole ointment has been used, as has 5 per cent solution of sodium sulfathiazole sesquihydrate. For persistent corneal infiltrates, x-ray has seemingly yielded some results.

Period of Infectivity.—It is not yet known how long the danger of transmission to others exists. At present for practical purposes a sufferer from epidemic keratoconjunctivitis may be allowed to return to work when the active conjunctivitis has disappeared.

Preventive Measures.—At present the only preventive measure known is complete isolation of infected persons. Inasmuch as the disease has been transmitted through medical personnel, the most meticulous asepsis must be insisted upon. Not only must physicians and nurses wash their hands thoroughly with soap and water after attending each patient, but also eye droppers, solutions, instruments, etc., must be sterilized to prevent infection of noncontaminated persons. The infected individual must be told of the danger of transmission of this disease to others, not only in the plant, but even in the home surroundings. It is suggested that in industrial plants where epidemic keratoconjunctivitis has made its appearance the following methods of procedure be adopted:

1. In smaller plants with a limited personnel, every individual with a red eye should be stopped at the entrance of the plant and sent at once to the plant physician to determine whether or not epidemic keratoconjunctivitis is present. In larger plants where such a procedure is not possible, supervisors and foremen should be instructed in detail to make the rounds immediately when a fresh shift starts, and send any individual with a red eye to the medical office.
2. If the cases are to be treated at the medical department of the plant, a separate room should be set aside for such cases and in that room there must be exercised the most scrupulous asepsis, even to washing off the arms of the chairs in which the patients sit. Aside from the aseptic and separate care of the recognized cases of the disease, special cleanliness of the hands of the physician in the general clinic should be maintained, with the use of an effective disinfectant between cases, lest the infection be spread by means of undiagnosed cases, especially those suspected of having foreign bodies in the eye.
3. Every worker with epidemic keratoconjunctivitis should be excluded from the communal facilities of the plant until the inflammation has subsided to the point where the plant physician considers it no longer transmissible.
4. Explicit instructions should be given to every individual regarding the danger of transmission, and emphasizing the decrease in the war effort as a result of the time lost from epidemic keratoconjunctivitis.
5. The local health authorities should be notified immediately of the existence of individual cases.

The four-year medical technology program offered by the Washington Square College of Arts and Science of New York University, in collaboration with three local hospitals, has been approved by the Council on Medical Education and Hospitals of the American Medical Association, Professor William

McTavish, director of the program, reported recently.

The hospitals with which the university is co-operating on this program are St. Luke's and Beth Israel in New York City, and Grasslands in Westchester County.*

POSTGRADUATE COURSES AT MOUNT SINAI HOSPITAL

The Mount Sinai Hospital is offering two comprehensive twelve-week postgraduate courses, one in cardiovascular diseases and the other in gastroenterology, from April 5 to June 23, 1943. These courses will be given in affiliation with Columbia University.

CARDIOVASCULAR DISEASES

Mondays, 9:00 A.M. to 12:00 M;
Wednesdays, 2:00 P.M. to 5:00 P.M.

This course has been designed to deal with the broader diagnostic and therapeutic aspects of the more common clinical patterns of rheumatic, arteriosclerotic, syphilitic, and congenital heart disease. Electrocardiography, x-ray, fluoroscopy, pathology, and physical diagnosis will be treated as major subjects.

The facilities of the medical and pediatric wards, cardiac clinics, x-ray, cardiographic, and pathologic laboratories will be made available for the purposes of teaching.

GASTROENTEROLOGY

Mondays, 2:00 P.M. to 5:00 P.M.;
Wednesdays, 9:00 A.M. to 12:00 M.

This comprehensive course in gastroenterology will attempt to cover the fundamentals of diagnosis, clinical medicine, and therapy. Medical symptomatology will be stressed. The indications for operation and the actual surgery of the disease will be followed throughout the progress of the course. The surgical amphitheater and surgical rounds are an essential part of the course. The underlying gross pathology of gastric and intestinal diseases will be presented by appropriate authorities, and laboratory, particularly functional tests, will be taught in detail.

Gastroenterology as it is affected by the war, especially with respect to peptic ulcer and the parasitology of tropical diseases, will receive particular attention.

For further information, address the Secretary for Medical Instruction, The Mount Sinai Hospital, Fifth Avenue and 100th Street, New York, New York.

GUIDES TO THERAPY FOR MEDICAL OFFICERS

An excellent pocket-sized technical manual, entitled *Guides to Therapy for Medical Officers*, has recently been issued by the War Department. As stated in the opening paragraph, the purpose of this manual is to provide the medical officer with a handy text containing guides to therapy under emergency conditions or in diseases with which he is relatively unfamiliar. . . . It is intended to serve as a guide to the "general practitioners" of the Army and not as a text for specialists, who are likely to be stationed with evacuation units or in general hospitals. . . .

The manual is well conceived and carefully executed. The Surgeons General of the Army and Navy, early in 1940, requested the Division of Medical Sciences of the National Research Council to establish committees that should act in an advisory capacity to the two medical corps. Much of the text of this manual is based on material compiled by these committees. Final revision was conducted by pertinent divisions of the Office of the Surgeon General, U.S. Army. . . .

The reports of the many experts are presented in an easily readable, compact, and orderly fashion. The major subjects covered are as follows: surgical emergencies; medical emergencies; diagnosis and treatment of venereal diseases; chemotherapy and

serotherapy in certain infectious diseases; treatment and control of certain tropical diseases; and rickettsial diseases. The contributors to each of these sections include many of the leading names in American medicine and surgery.

Under surgical emergencies are included the commonest types of wounds in various parts of the body, the management of shock, and the early treatment of burns. Most of the essential details are given, but the specialized forms of treatment that can be undertaken only by experts are almost entirely omitted. The section on medical emergencies covers the majority of situations that might arise under the great variety of conditions to which troops are likely to be subjected, including such diverse items as acute poisoning from various foods, chemicals, plants, and animal sources, seasickness, altitude sickness, the effects of exposure to heat and cold, starvation, and the acute psychoses. The sections on tropical and rickettsial disease are meant to acquaint medical officers with conditions that are rarely encountered in civilian practice but that are very likely to be met with in the far-flung regions where troops may be operating. . . . The manual can be obtained for twenty-five cents from the Superintendent of Documents, Washington, D.C.—*New England J. Med.*

Negotiable Blood

Two years ago the Medical Society of the County of New York appointed a committee to develop a plan to reduce the cost of blood transfusions and to make blood more generally available to the needy in these parts. Out of the committee's work came the remarkable Blood and Plasma Exchange Bank, which applies horse-trading principles with extraordinary efficiency, but of which few have heard.

The big hospitals have their own banks. The smaller hospitals have none, for the reason that they cannot afford them because of the fewness of their patients. Yet the small hospitals need blood or plasma in emergencies. To obtain it either friends or relatives of a patient offer their blood or a paid donor is supplied by an agency at a price of about \$50, which does not include hospital extras. Sometimes it happens that the blood of voluntary donors must be rejected because it is incompatible, though otherwise sound. Why not trade it for blood that is acceptable? So we find the small hospitals sending donors to the big hospitals and receiving in exchange half the amount of donated blood or an allowance in

money. About thirty-four hospitals are now members of the Blood and Plasma Exchange Bank. In a preliminary six months' test in which only three hospitals were involved, \$1,900 was saved in 100 cases. The cost of a transfusion has been greatly reduced for those in moderate circumstances, and the needy receive blood free of charge.

So admirable a system of trading incompatible for compatible blood clearly deserves the attention of medical societies and hospitals throughout the country.

The County Medical Society of New York has already laid plans for the extension of the exchange system to include neighboring counties. But the whole country should be dotted with blood exchanges, with the result that transfusions, which are now almost historic events in small towns, will become more frequent, and that thousands of lives will be saved annually. Moreover, there is the prospect that blood will be given to these widely scattered exchanges not only in war but in peace.—*Reprinted with permission of the New York Times*

Nurse Prevents Rabies Threat

Alertness of a nurse and the administering of emergency treatment probably saved the lives of two cement workers in Rockland County after they had been recently bitten by a rabid squirrel, according to the State Department of Health.

The two men were working in the construction of a camp. At noon, one of the workers reached inside a large tool chest for his lunch box. Without warning, he was suddenly bitten and clawed on the fingers by an unknown animal. The second man attempted to come to his aid and in extricating the hand of his fellow worker, was himself bitten. It was then that the men discovered that the animal in

the tool box was a common gray squirrel and they immediately killed it with a tool.

The two injured men sought first aid treatment at the construction company's infirmary where the nurse asked them to obtain the body of the squirrel which was then submitted by the company physician to a laboratory for examination for evidence of rabies. The results showed that the animal was rabid, and the two workers were given injections of antirabic vaccine. The report said that had the nurse been less alert, the body of the squirrel might have been discarded without examination and as a result the men might have developed rabies.

New Typhoid Record Set

A new record of no reported cases of typhoid fever in New York State outside of New York City was established in February, making the first time that an entire month has elapsed without a single reported case of this disease in the upstate area, according to the State Department of Health. The previous all-time monthly low (2 cases) was reached in March, 1933, and December, 1942.

Commenting on the report, officials of the Department said that another new low record was established last year when only 131 cases of typhoid fever were reported, 17 fewer than the previous minimum of 148 cases in 1940. The highest annual incidence was recorded in 1910 when there were 4,801 cases with the monthly maximum of 843 cases occurring during September that year.

Other Eye Diseases May Resemble Nearsightedness

"The best interests of the public will be served if those who have disease of the eyes with apparent nearsightedness will have their disease discovered and treated and not simply get a pair of glasses," Daniel B. Kirby, M.D., New York, suggests in *Hygeia, The Health Magazine*, for February.

Dr. Kirby points out that other disease conditions of the eye that are caused by such factors as dietary deficiency or undernourishment may resemble simple myopia, and that the eye physician can readily tell the difference between cases....

"Certain children are born with faultily developed eyes—such as congenital, cataract, glaucoma, scars of inflammations which existed before birth, failure of development of normal pigmented or colored cells, as in albinos, and defects caused by

hemorrhage or pressure which occurred during birth. These children are apparently nearsighted, as are those also who develop scars from syphilis, gonorrhea, tuberculosis, or other diseases in infancy or early childhood....

"In adult life, various diseases and poisons may so diminish vision by their effect on the sensitive retina and the nervous tissue of the eye that in the effort to see the patient may appear to be nearsighted. Nicotine, alcohol, diabetes, nephritis, and various infections may bring this about. Diabetes especially, with its changes of sugar and salt concentrations in the blood and changes in the fluids of the eye, may cause such 'transient' nearsightedness...."

Heredity may be a factor in the development of myopia, Dr. Kirby declares, but farsighted children

Radio Programs on Tuberculosis

In observance of the 1943 Early Diagnosis Campaign of the New York Tuberculosis and Health Association, a number of radio programs have been planned. Speakers and their subjects will include:

- April 17—9:15 A.M.—WOR
 "Present-Day Facts About Tuberculosis," Dr. Edgar Mayer, assistant professor of clinical medicine, Cornell University Medical College
- April 17—1:15 P.M.—WMCA
 "Industry Helps Tuberculosis Campaign," Mr. Bernard S. Coleman, Secretary, Tuberculosis and Health Association
- April 19—4:45 P.M.—WBNX
 "The Prevention and Early Recognition of Tuberculosis in Childhood," Dr. Charles Kastenbaum, Bronx County Medical Society and Bronx Tuberculosis and Health Association
- April 22—1:15 P.M.—WNYC
 "Control of Tuberculosis in Industry," Dr. H. H. Fellows, assistant medical director, Metropolitan Life Insurance Co.
- April 23—11:45 A.M.—WNYC
 "Too Little and Too Late," Mr. Edward J. Walton, Industrial Secretary, Brooklyn Tuberculosis and Health Association
- April 24—9:15 A.M.—WOR
 "Will I Be Able to Work Again?" Mr. Frederic G. Elton, District Supervisor, Bureau of Vocational Rehabilitation, State Department of Education

- April 24—1:15 P.M.—WMCA
 "Help for Your Health Problem," Miss Gladys M. Park, R.N., Secretary, Information Service, Bronx Tuberculosis and Health Association
- April 26—4:45 P.M.—WBNX
 "Tuberculosis and Heart Disease," Dr. Harry Jacobstein, Bronx County Medical Society and Bronx Tuberculosis and Health Association
- April 29—1:15 P.M.—WNYC
 "The Role of the Nurse," Miss Mary Ellen Manley, R.N., Director, Division of Nursing, New York City Department of Hospitals
- April 30—11:45 A.M.—WNYC
 "Putting the Tuberculous Back on the Payroll," Mr. Edward Hochhauser, President, Altro Workshops
- May 1—1:45 P.M.—WABC
 "The Working Adolescent," Dr. Thomas Parran, Surgeon General, United States Public Health Service

In addition to these speakers, radio time will be given to the campaign by the following women commentators: Nancy Booth Craig on her program, "Women of Tomorrow" over the Blue Network (WJZ) from 8:30 to 9:00 A.M. daily; Adelaide Hawley, on her program, "Woman's Page of the Air" over Station WABC from 8:45 to 9:00 A.M. daily; and Kathryn Cravens, on her program, "News Through a Woman's Eyes" over Station WNEW from 4:45 to 5:00 P.M. daily.

Invalid Diets and Rationing

In a bulletin issued on February 9, 1943, the Office of Price Administration has given special directions for ration-point distribution in invalid diets. The order, No. 13, covers all canned, frozen, and dried fruits and vegetables. Article II, Section 2.5 reads as follows:

"Consumers who need more processed foods because of illness may apply for more points. (A) Any consumer whose health requires that he have more processed foods than he can get with War Ration Book 2, may apply for additional points. The application must be made on OPA Form R-315, by the consumer himself or by someone acting for him, and may be made in person or by mail. The application can be made only to the board for the place where the consumer lives. He must submit with his application a written state-

ment of a licensed or registered physician or surgeon, showing why he must have more processed foods, the amounts and types he needs during the next two months, and why he cannot use unrationed foods instead.

(B) If the board finds that his health depends upon his getting more processed foods, and that he cannot use or cannot get unrationed foods, it shall issue to him one or more certificates for the number of points necessary to get the additional processed foods he needs during the next two months."

The application, OPA Form R-315, is the one originally designed for home canning needs and is entitled "Sugar Special Purpose Application." It is being used only temporarily until a more adequate form is ready.

No Correction for Color Blindness

Despite unsubstantiated claims to the contrary, methods of correcting color blindness are unknown, *The J.A.M.A.* warns. *The Journal* says:

"Newspaper publicity given recently to an alleged cure for color blindness seems to emanate from one J. H. Lepper, optometrist, of Mason City, Iowa. In reply to inquiries concerning his procedure for correcting color blindness, a form letter is sent in which it is stated 'YES, YOUR CASE OF COLOR BLINDNESS CAN BE CORRECTED. IF WE DO NOT, IT WILL BE THE FIRST CASE.' The statement also suggests that cases take from two to three weeks for correction. If the patient comes to Mason City, \$5 a day is charged. If the prospect finds it impossible to come to Mason City, Lepper says he can send the

same equipment, involving two pairs of special colored glasses and one color vision test book, for a total of \$25. A lamp with a reflector and a 60 watt bulb and a flasher if obtainable are also required for home treatment. The form letter is accompanied by a list of testimonials, none of them signed by the writer's full name. Color blindness is a congenital defect. Despite unsubstantiated claims to the contrary, methods of correcting this condition are unknown. Many letters sent to the headquarters of the American Medical Association indicate that men who have had difficulty in gaining entrance to the Navy or the Air Force have been given false hopes by this wholly unwarranted publicity for an unestablished procedure."

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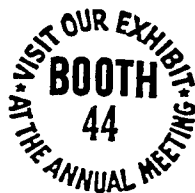
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are often born of myopic parents and vice versa. Faulty glandular secretion may be a causative factor. Proper foods and the use of vitamins and minerals are necessary for the eyes of growing children.

Regarding the use of glasses by myopic persons, Dr. Kirby says that "it is wise to use glasses for clear vision, if only for its own sake and for the pleasure and joy of seeing, but it cannot be said that the use of proper glasses will protect the eyes and prevent the further progress of myopia, nor on the other hand may we argue that glasses ruin the eyes and regret

that glasses have been used, thinking that the eyes would have 'grown out' of the condition.....

"The slogan, 'Throw away your glasses!' is a laudible one only if applied to those who can see as well for all purposes without glasses but who have been told to wear them and are afraid not to do so.

... Taking glasses away from those who are myopic is a tragedy. These people really need glasses to see well and should have them for this purpose."

Dr. McEwen to Speak on Rheumatic Fever

Dr. Currier McEwen, Dean, New York University College of Medicine, will address the seventh session of the Refresher Lecture Course on Cardiovascular Diseases, which will be held on Wednesday, April 28, at 4:30 P.M., New York Academy of Medicine.

Dr. McEwen's subject will be "The Management of Rheumatic Fever." The course, which is open

to all practicing physicians and medical students, is given under the joint auspices of the New York Heart Association of the New York Tuberculosis and Health Association and the New York Academy of Medicine. Dr. Herbert Chasis, assistant professor of medicine, New York University, is the presiding officer of the lecture course.

Rehabilitation for Tuberculosis Patients

Practicing physicians treating patients with pulmonary tuberculosis will be interested in the facilities offered by the Committee for the Care of the Jewish Tuberculous through its Altro Work Shop for the industrial rehabilitation of patients now capable of only part-time work. Patients are engaged in making washable garments, but no previous experience in this work is necessary. They are paid at piece rates equal to the prevailing trade union scale and remain at the workshop until full work capacity is achieved—generally in six months

to two years. The patient may continue under the care of his private physician throughout the period.

A report of the results achieved at the Altro Work Shop in the past twenty-five years appeared in the November, 1942, issue of the *American Review of Tuberculosis*. Physicians and other professionals are invited to visit the Altro Work Shop at 1021 Jennings Street, the Bronx. Patients may be referred for admission to the workshop through the C. C. J. T., 71 West 47th Street, New York City.—*J. Med. Soc. County of N.Y.*



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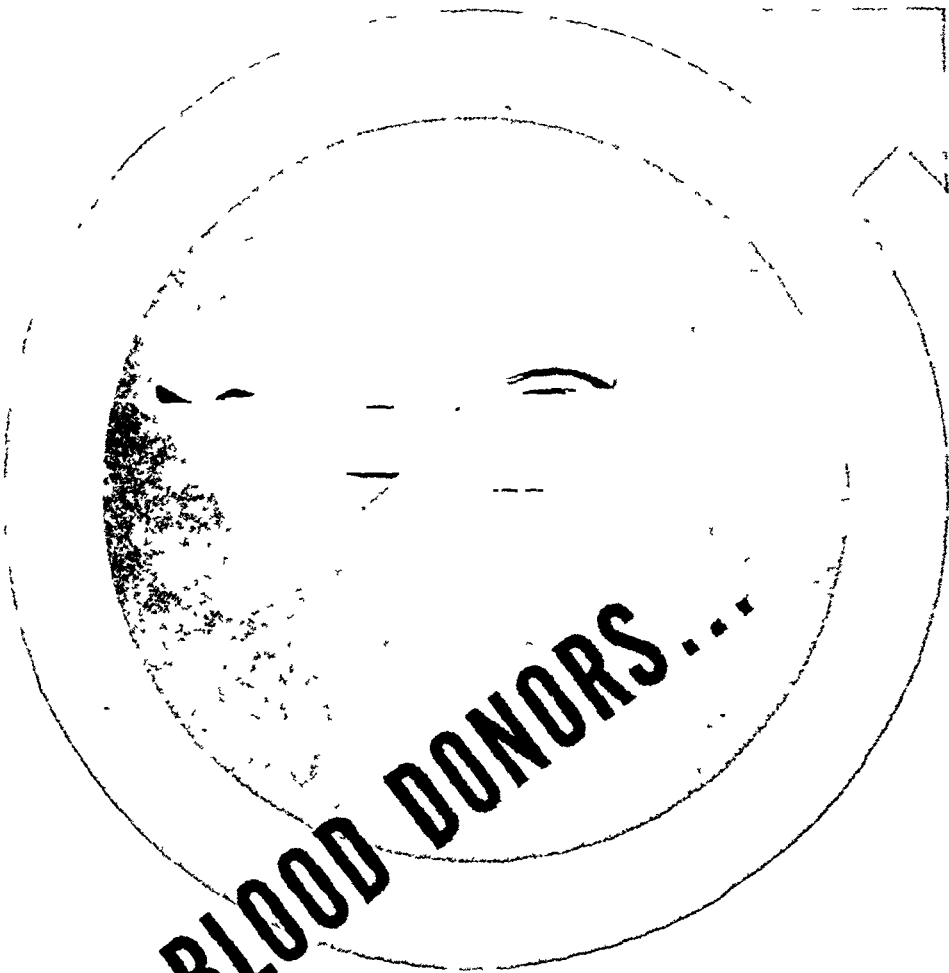
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*Fowler and Barer, Rate of Hemoglobin Regeneration in Blood Donors, JAMA, 118:421 1942
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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

RECEIVED

The Antigonadotropic Factor. By Bernhard Zondek and Felix Sulman. Octavo of 185 pages. Baltimore, The Williams & Wilkins Company, 1942. Cloth, \$3.00.

Manual of Oxygen Therapy Techniques. By Albert H. Andrews, Jr., M.D. Duodecimo of 191 pages. Chicago, The Year Book Publishers, Inc., 1943. Cloth, \$1.75.

Indigestion: Its Diagnosis and Management. By Martin E. Rehfuess, M.D. Octavo of 556 pages, illustrated. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$7.00.

Psychosomatic Medicine. By Edward Weiss, M.D., and O. Spurgeon English, M.D. Octavo of 678 pages. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$8.00.

Orthopedic Subjects. Prepared and Edited by the Subcommittee on Orthopedic Surgery of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. George E. Bennett, Chairman. Octavo of 306 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth.

Therapeutics of Infancy and Childhood. Edited by Harry R. Litchfield, M.D., and Leon H. Dembo, M.D. 4 vols. and desk index. Octavo of 3,831 pages, profusely illustrated. Philadelphia, F. A. Davis Company, 1942. Cloth, \$32.

Familial Nonreaginic Food Allergy. By Arthur F. Cocoa, M.D. Octavo of 160 pages. Springfield, Charles C. Thomas, 1943. Cloth, \$3.00.

Healthy Babies Are Happy Babies. By Josephine H. Kenyon, M.D. Third Edition, Completely Revised. Duodecimo of 343 pages. Boston, Little, Brown & Company, 1943. Cloth, \$1.50.

Religion and Health. By Seward Hiltner. Duodecimo of 292 pages. New York, The Macmillan Company, 1943. Cloth, \$2.50.

Family Treasures. By David D. Whitney, Ph.D. Octavo of 299 pages, illustrated. Lancaster, Pa., The Jaques Cattell Press, 1942. Cloth, \$3.50.

The Hormones in Human Reproduction. By George W. Corner. Octavo of 265 pages, illustrated. Princeton, N.J., Princeton University Press, 1942. Cloth, \$2.75.

Endoscopic Prostatic Surgery. By Roger W. Barnes, M.D. Octavo of 232 pages, illustrated. St. Louis, The C. V. Mosby Company, 1943. Cloth, \$6.00.

Fractures of the Jaws and Other Facial Bones. By Glenn Major, M.D. Octavo of 446 pages, illustrated. St. Louis, The C. V. Mosby Company, 1943. Cloth, \$7.50.

Adventure in Blood Transfusion. By Bertram M. Bernheim, M.D. Octavo of 182 pages, illustrated. New York, Smith & Durrell, Inc., 1942. Cloth, \$2.50.

Bronchiectasis. By James R. Lisa, M.D., and Milton B. Rosenblatt, M.D. Octavo of 190 pages, illustrated. New York, Oxford University Press, 1943. Cloth, \$4.00.

REVIEWED

Atlas of Ovarian Tumors. By Gemma Barzilai, M.D. Quarto of 261 pages, illustrated by 58 plates, 45 in color. New York, Grune & Stratton, 1943. Cloth, \$10.

Gemma Barzilai, of New York, has done a wonderful job in her *Atlas of Ovarian Tumors*, recently published by Grune and Stratton.

The terminology is that most often accepted and the division of tumors is the one that gynecologists and pathologists have adopted.

The wealth of material required to develop such an atlas could not be found in any one clinic, and it is little wonder that the author combed the laboratories of Milan, Istanbul, Vienna, New York, and other places. The work is complete.

The micrographs, both the colored and the black-and-white ones, are excellent and are the next best thing to seeing the specimens themselves.

Following the introduction there is a classification of ovarian tumors which greatly tends to simplify the subject. If pathologists in general would stick to this classification in describing such tumors it would be much easier for the clinician.

Granulosa and theca cell tumors are more commonly seen by many of us, but the virilizing lipoid cell tumor of the ovary and some of the other rarer tumors are a real treat.

The discussion of the symptomatology and treatment of these tumors is brief, but an atlas is not a book in which one expects to find this part of the subject *in toto*. It is sufficient to point the way for ready reference.

The format of the book and the typography are a delight to the bibliophile.

ALFRED M. HELLMAN

A Short History of Cardiology. By James B. Herrick. Octavo of 258 pages, illustrated. Springfield, Charles C. Thomas, 1942. Cloth, \$3.50.

It is a pleasure to be able to report in this review that the grand old man of American cardiology, James B. Herrick, has written a delightful and, within self-imposed limits, a definitive history of cardiology.

Dr. Herrick is careful to indicate that his history is not intended to be encyclopedic. The centuries which are emphasized are the seventeenth, eighteenth, and nineteenth. There is a brief sketch of cardiology before Harvey and a few notes on twentieth-century cardiology. The arrangement of the book is extremely satisfactory. Each of the epochs is treated in a different chapter: Harvey to Laennec, Laennec to Virchow, Virchow to Koch. Other

[Continued on page 794]

The Hemorrhagic Diseases and the Physiology of Hemostasis. By Armand J. Quick, M.D. Octavo of 340 pages. Springfield, Charles C. Thomas, 1942. Cloth, \$5.00.

The purpose of this monograph may be best summarized in the words of the author: "to present and to correlate the experimental and theoretical aspects of hemostasis and to summarize the present knowledge concerning the important hemorrhagic diseases." To this task, truly a monumental one, Dr. Quick brings his armamentarium of factual knowledge and his spirit of the pioneer, the investigator, the teacher.

All this is mingled with a judicious sure-footedness, which comes of the many experiences and adventures in the field. Only such a man can have the fortitude to appraise old theories and masters for what they were, and to view new speculations in the light of authoritative inquisitiveness.

To take a subject so replete with confusion and to simplify it to its fundamental elements has been the task accomplished in this monograph.

The reviewer can recommend this book very highly to clinician or surgeon, and, in fact, dares him to get along without it.

MAURICE MORRISON

Abdominal and Genito-Urinary Injuries. Prepared under the Auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. Octavo of 243 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$3.00.

This book provides a valuable military manual for medical officers. It should prove of great assistance to surgeons in the field and on shipboard who do not have access to highly trained specialists in abdominal and urologic surgery.

The work is authoritative, with contributions by outstanding leaders. It is well illustrated and includes references at the end of each chapter. It is one of a series of six volumes covering all surgical specialties.

Medical officers with good basic training, equipped with these manuals as ready references, should be able to meet more efficiently the problems of emergency and major surgery.

The reviewer is especially impressed with the last chapter on "Do's and Don't's," by Frank Hinman and associates.

AUGUSTUS HARRIS

Endocrinology: Clinical Application and Treatment. By August A. Werner, M.D. Second edition. Octavo of 924 pages, illustrated. Philadelphia, Lea & Febiger, 1942. Cloth, \$10.

This is a well-written book on general endocrinology. The author is a well-known internist who has made numerous scientific contributions to current endocrinologic literature. Almost every section of the book has been revised, and 323 illustrations are included. It is rich in accurate and extensive quotations from leading authorities in the field. The author's original work on involutional melancholia is reviewed. Various types of syndromes are presented in an orthodox fashion, with extensive notes on exemplary cases. Some of the early patients suffering from pituitary and gonadal deficiencies were treated with preparations which were practically inert. Nevertheless, the clinical interpretations and therapy are the last word up to the time the book was written. It is highly recommended as a treatise for the general practitioner and the endocrinologist.

BERNARD SELIGMAN

(Continued on page 797)

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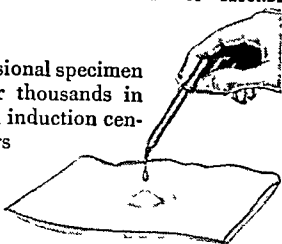
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LIPOLYSIN
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[Continued from page 792]

chapters are devoted to inflammation of the heart, affections of the myocardium, syphilis of the heart and aorta, and an important chapter on the coronary artery and its diseases, a subject on which the author is one of the world's most famous authorities.

The highest praise one can give this volume is to state very simply that it is exactly what one would expect from Dr. Herrick. Internists, cardiologists, and medical historians may hope that the author has a larger history of cardiology in mind. We should be given the advantage of Dr. Herrick's mature judgment for periods not covered in this short history. Nevertheless, it is surprising how much Dr. Herrick has been able to compress within the two hundred odd pages of this volume. All of the important contributions to cardiology are mentioned and there are numerous excellent illustrations. In short, this is a work which can be highly and widely recommended. It should command the admiration of a large audience.

MILTON PLOTZ

Occupational Tumors and Allied Diseases. By W. C. Hueper, M.D. Quarto of 896 pages. Springfield, Charles C. Thomas, 1942. Cloth, \$8.00.

Dr. Hueper has achieved in a compilation of volumes of pertinent literature a comprehensive well-planned work that presents the relationship of neoplastic diseases to occupational exposure.

From the earliest evidence, historically, of the development of schistosomiasis cancer of the bladder among the Egyptians, to the danger lurking in the exposure to gases, chemicals, pressure chambers, etc., of the new industries created by the expanding industrial program, the author presents, in an easily readable text, a complete description and discussion of the hazards involved and the resulting affections. The reader's attention is held from chapter to chapter by a wealth of clinical material, authentic facts, and helpful classifications. Tables, charts, and statistics are conspicuous by their absence. A comprehensive bibliography is appended to each chapter.

HARRY MANDELBAUM

Blood Substitutes and Blood Transfusion. Edited by Stuart Mudd, M.D., and William Thalheimer, M.D. Octavo of 407 pages, illustrated. Springfield, Charles C. Thomas, 1942. Cloth, \$5.00.

This excellent book is a symposium-monograph containing a collection of 38 papers by 70 collaborating investigators, and dealing with various aspects of plasma and blood transfusion. These papers were read at the annual meeting of the American Serum Association in June, 1941, and have been brought up to date by the authors, who introduced the results of more recent work when they revised the proofs. Therefore, this volume constitutes a comprehensive, authoritative, and modern review of the subject. The papers have been arranged in logical order and are collected under six main headings: (1) etiology and mechanism of shock, (2) preservation of plasma by freezing and desiccation, (3) hemoglobin, serum albumin, and casein digest as blood substitutes, (4) blood substitutes in the world emergency, (5) Rh factor: group-specific substances and universal donors, and (6) therapeutic experiences with serum and plasma. The medical profession owes a debt of gratitude to the publisher of this volume for making the papers available in convenient form. The book will prove invaluable as a constant source of reference for all physicians in military or civilian life who have any occasion to give transfusions of blood or plasma.

A. S. WIENER

[Continued from page 795]

A Textbook of the Practice of Medicine. By Various Authors. Edited by Frederick W. Price, M.D. Sixth edition. Octavo of 2,032 pages. New York, Oxford University Press, 1941. Cloth.

There is a demand for a new edition of this book every four or five years. The first edition appeared in 1922 and now we are reviewing the sixth. This speaks well for a work which apparently is the standard text in many schools abroad.

The preface to this edition contains a list of the new articles that have been added on many diseases; other sections have been completely rewritten, and so much new matter added that this edition is completely modern.

One notices a tendency to long paragraphing, reaching in one instance 70 lines (pages 421, 422, 423). The student does not like this at all. This gives one the opportunity to express a certain degree of long-repressed indignation as follows:

"There are a number of textbooks excellent in content containing authoritative material, written by men of high repute, and issued primarily for the use of students, and yet which show an utter disregard of the psychology of the student *in re* his text. The ideal textbook must have the proper type, it must not crowd too much nor oftentimes have unrelated material in one paragraph, and it must be illustrated, and it must not weigh 7 or 8 pounds. You can not present 105 pages of closely written text on diseases of the skin without a single illustration. If it is a question of cost, then the subject should be left to the specialty textbook.

"Why the pathology of influenza is merely alluded to is difficult to explain. As to its value in the elucidation of many of the clinical phenomena, we refer to 'Influenzal Pneumonia' in Boyd's, *The Pathology of Internal Diseases*.

"One would select the section on single 'Diseases of the Circulatory System' as being of special merit. Covering 225 pages and containing 51 electrocardiographic tracings, it is almost a textbook on the heart by itself.

"To begin the introduction of the chemotherapy of acute pneumococcus lobar pneumonia with the statement that 'Sulphapyridine has proved of great value' is lacking in enthusiasm; and when in the same paragraph there is a discussion of other drugs, such as diuretics and expectorants, then surely the student is left unimpressed with the specific action of the sulfa compounds.

"One awaits the day when a textbook of the practice of medicine will appear in two volumes so that there will be adequate room for illustrations, bibliography, etc. The present volumes have reached the saturation point, as has this one with over 2,000 pages; every edition must have room for additional material. It will be a red-letter day for the student when that time arrives."

S. R. BLATTEIS

Physical Chemistry for Students of Biochemistry and Medicine. By Edward S. West, Ph.D. Octavo of 368 pages, illustrated. New York, The Macmillan Company, 1942. Cloth, \$5.75.

The material for this book is an elaboration of a course in biochemistry given by the author to medical students. It was justifiably recognized by him that only selected phases of physical chemistry necessary to an understanding of biologic phenomena should be presented. This book is thus an elementary introduction to physical chemistry. It deals with such important subjects as the physical properties of protoplasm, atomic structure, the physical

[Continued on page 798]

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Restaurants and hotels operating on the European plan will not require patrons to give up their rationing points or coupons, but one thing seems absolutely sure, and that is the portions will be substantially reduced and the variety limited. Hotels operating on the American plan intend to ask guests for points and coupons.

Summer resort hotels are expected to ask their guests to bring along their No. 1 and 2 ration books, so the management can buy the necessary amount of food.

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[Continued from page 797]

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The Management of Fractures, Dislocations, and Sprains. By John A. Key, M.D., and H. Earle Conwell, M.D. Third edition. Quarto of 1,303 pages, illustrated. St. Louis, C. V. Mosby Company, 1942.

The third edition of this book brings up to date a textbook which has become outstanding in its field. Because of the introduction of sulfonamides, the chapter on compound fractures has been rewritten. The new section on war injuries, which has been added, is very timely and well done. Other chapters have been completely revised and brought up to date.

This new edition will be of great value to the student and to the practitioner alike.

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Diseases of the Gastro-Intestinal Tract. By Asher Winkelstein, M.D. (Oxford Medical Outline Series.) Octavo of 195 pages. New York, Oxford University Press, 1942. Cloth, \$2.00.

The author is to be congratulated on having compressed the modern concept of gastro-enterology in such a brief yet comprehensive manner. By the novel arrangement used, it is possible for one to review the facts known about any particular subject quickly and more or less thoroughly. This book should find a place on the shelf of almost any practicing physician, regardless of his special inclination.

There are several typographical errors which should be corrected in future editions, viz: (p. 35) in subhead 10 the word "therapy" should be "theory"; (p. 36) in subheading E the word "reproduction" should be "production."

BENJAMIN M. BERNSTEIN

War and the Doctor. Essays on the Immediate Treatment of War Wounds. Edited by J. M. Mackintosh, M.D. Octavo of 135 pages. Baltimore, William Wood and Company, 1941. Cloth, \$2.00.

This is the second edition of a collection of essays based on a series of lectures delivered at the request of the Edinburgh Branch of the British Medical Association. No claim is made of textbook unity, of design, or of completeness.

The first essay, "Fear Neuroses," is, at times, rather heavy but has a good account of "shell shock," a name which is now considered a misnomer and a menace. The essay on "Shock and Hemorrhage" emphasizes the dangers of the unwashed tourniquet. In this edition the use of plasma has been omitted. The chapter on "First-Aid Instruction in War-Time" has an excellent synopsis for first aid lectures. The final chapter, "Emergency Surgery in the Field," written by a veteran of the Boer War and the first World War, gives a vivid account.

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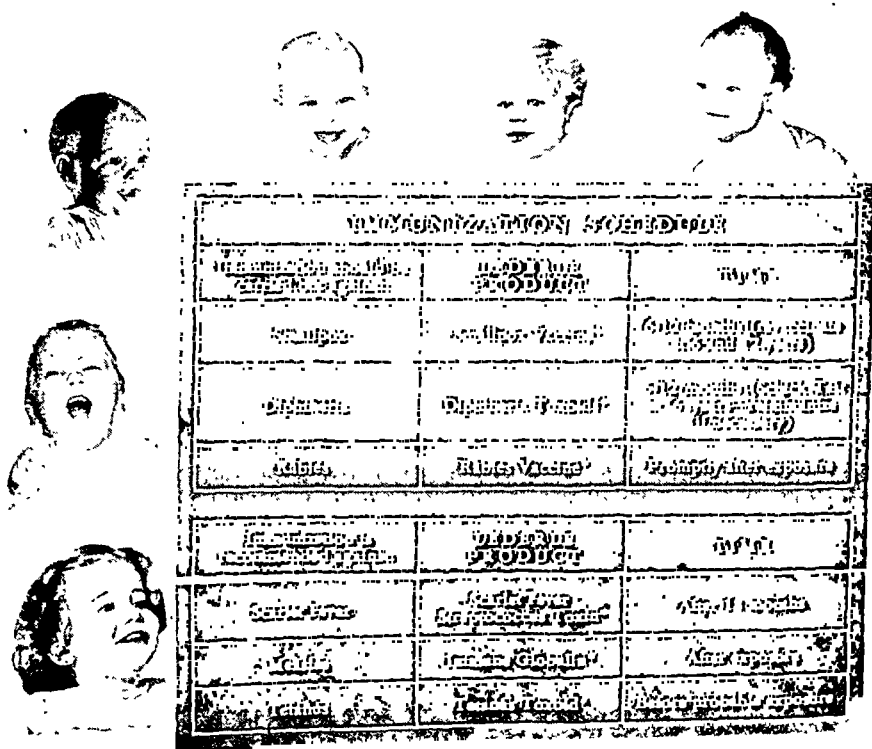
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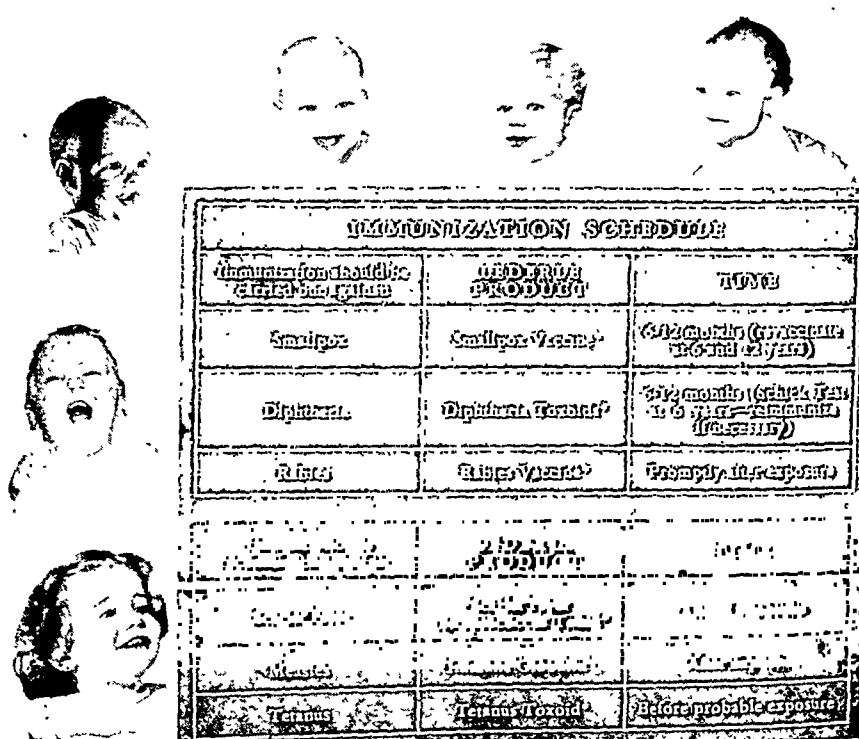
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VOLUME 43

MAY 1, 1943

NUMBER 9

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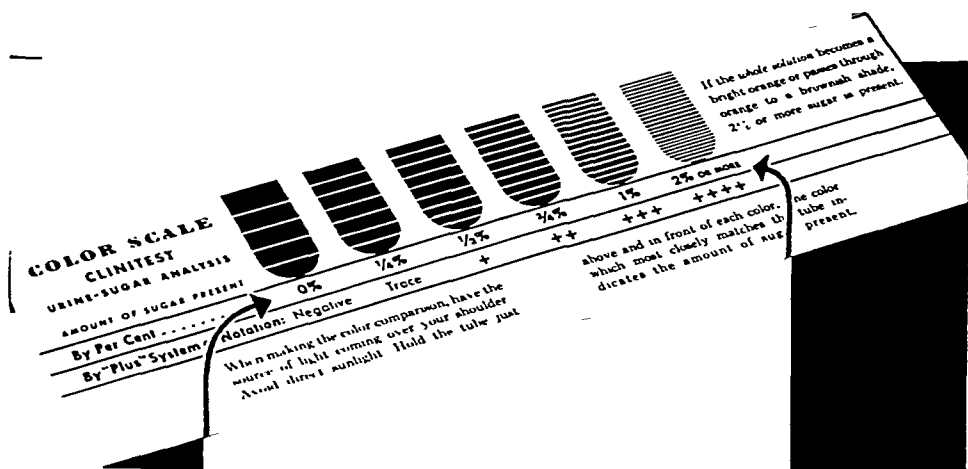
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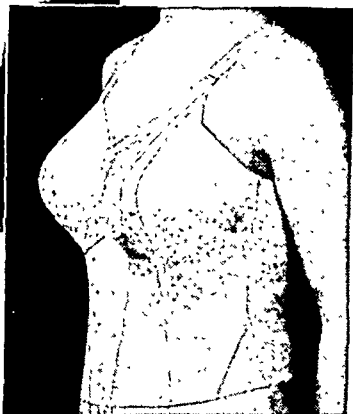
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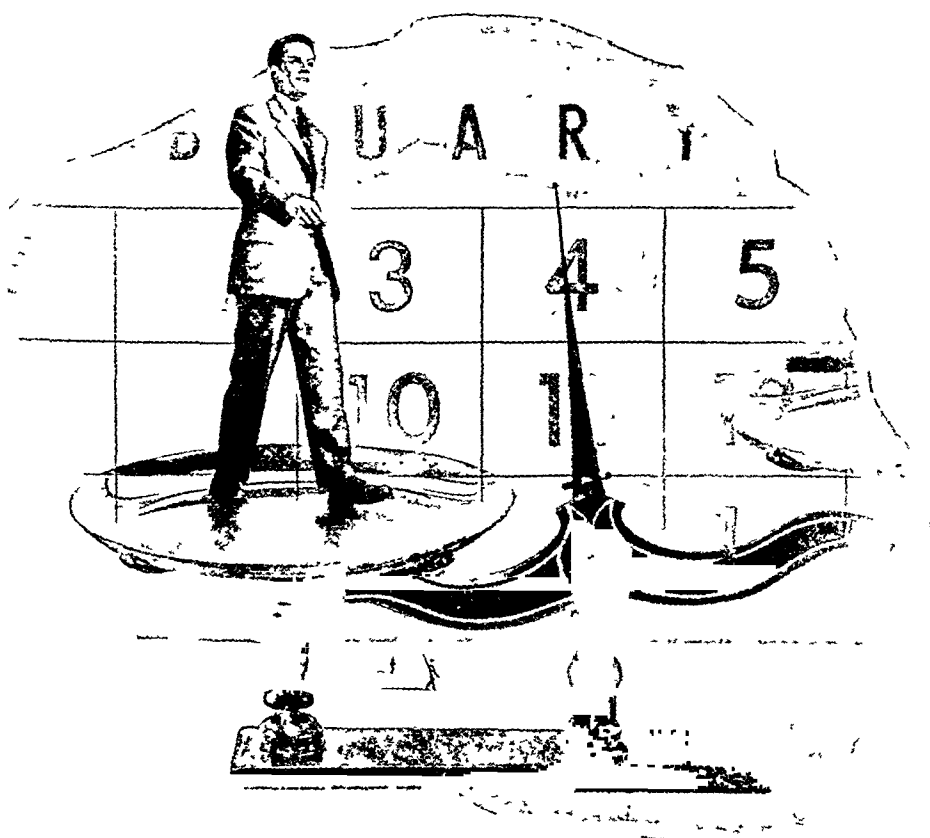
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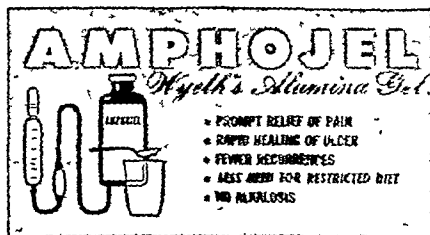
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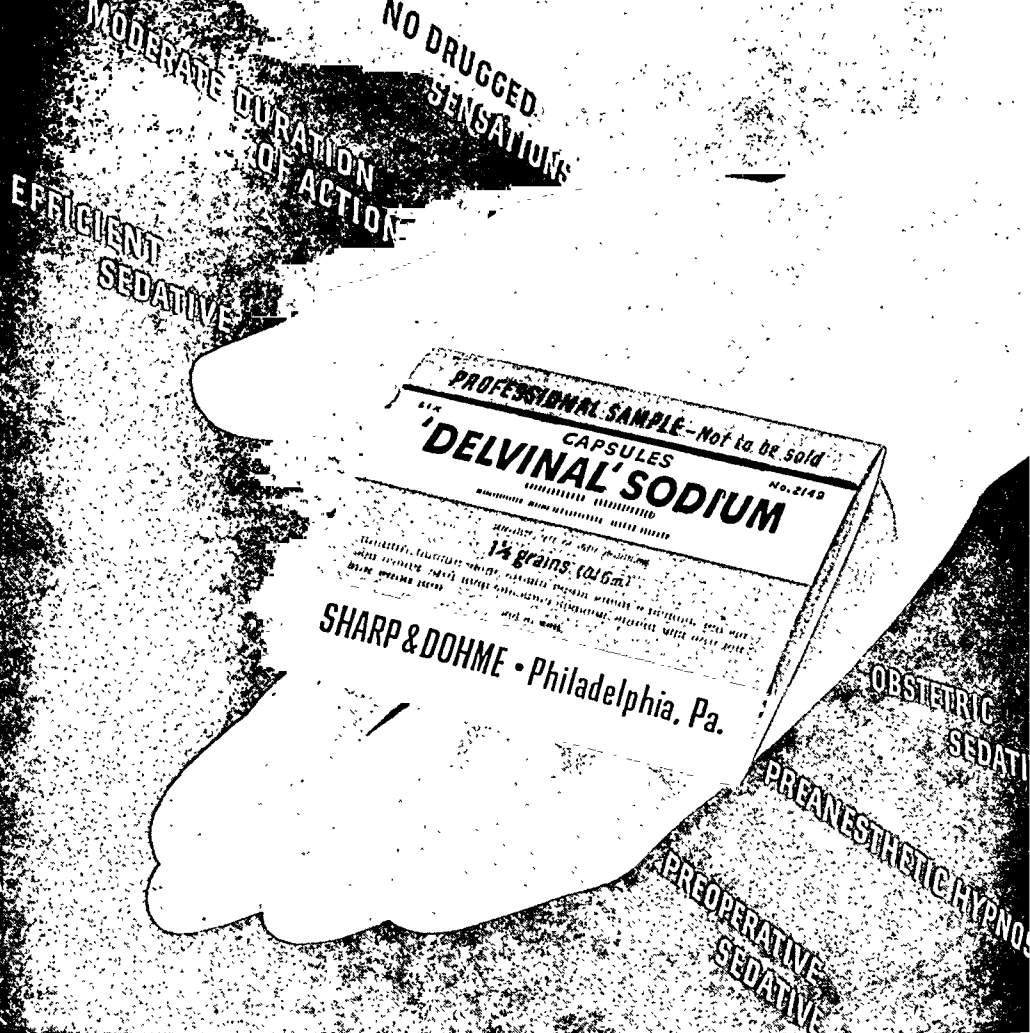
† COLLINS, E. N.; PRITCHETT, C. P., and ROSSMILLER, H. R.: The Use of Aluminum Hydroxide in the Treatment of Peptic Ulcer, *J. A. M. A.* 116: 109-113 (Jan 11) 1941.

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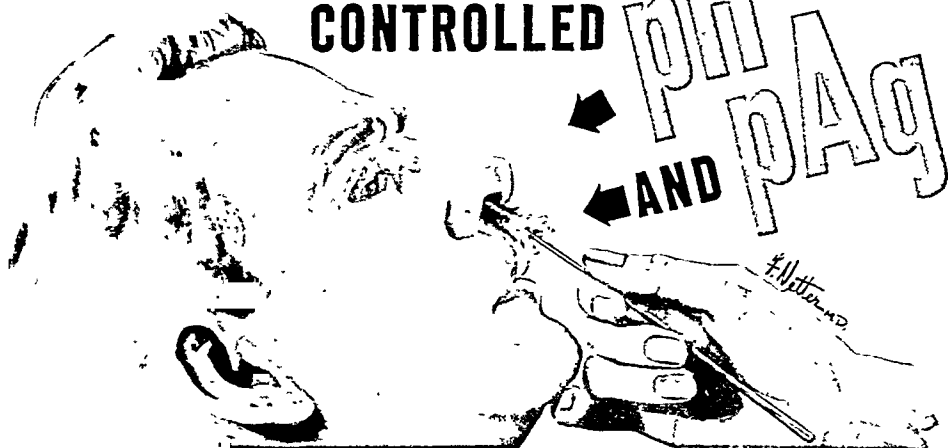
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VOLUME 43

MAY 1, 1943

NUMBER 9

Editorial

April 15, 1943

To Members of the Society in the Armed Forces:

I have read some of your letters of appreciation for receiving the *New York State Journal of Medicine* and they have impressed me deeply. It is difficult for us at home to realize how much you miss your regular medical periodicals. Just as our civilians are unable to sense the sights, sounds, and smells of a combat area or to comprehend the hardships and privations of active service, we stay-at-home physicians are likely to forget the handicaps under which you must carry on. Your letters serve as needed reminders.

The Society intends to maintain and raise the standard of the *Journal*. I am sure that the Publication Committee and the editorial staff will make your wishes and your needs their first consideration. The special article by Captain H. H. Michael in the March 1 number of the *Journal* is an example of medical literature written by a medical officer for medical officers. The Annual Meeting of the Society for 1943 is concerned largely with War Medicine. The important papers and addresses will reach you in the *Journal*.

We are not forgetful of conditions which will confront you after the war. A special committee is studying the problem of alien physicians. Dr. J. R. Clemmons, Chairman of the State P. & A., is placing physicians in depleted communities on a *locum tenens* instead of a permanent basis.

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be better served by care of the individual by groups of specialists.

"It is exactly upon this basis that all of the famous clinics in the United States have been founded and upon which they operate. We have a feeling that ultimately this is the way in which medical service will be rendered. There will still be a 'family doctor,' but this term will not be synonymous with 'general practitioner.' He will be a specialist of another kind—one specially trained in psychiatry, social science, and preventive medicine.

"We recently read the address of a president of a medical association in which he said, 'The day of the specialist is over for the duration. Before the war broke out, a man could be an eye, ear, nose, or throat specialist, for example, but now with so many doctors answering their country's call, he must be ready to deliver babies, deal with fractures of the spine, and attend to flat feet.'

"Goodness gracious!"

To which restrained comment we might add the words of Juvenal,³ "Grammarians, orators, geometricians; painters, gymnastic teachers, physicians; fortune tellers, ropedancers, conjurers—he knew everything." And what of the specialist who was, in better times, supposed to know more and more about less and less?

. . .

The *New England Journal of Medicine*⁴ is gently monitory to the paunchy and bald as follows:

"Just as the ancients believed that the heavens sped past them while they on earth stood still, so each of us, as an individual, is prone to think of himself as immutable, unchanging, while all about him goes on its course, ripening and aging and disappearing. Then, like a panic, comes a sudden appreciation of the fact that he has not been watching a procession but has been himself a part of it; that he may have little, after all, on which to congratulate himself when he notices a friend, paunchy and bald; that his own step has become more sedate, his knees stiffer; that he finds fewer fences of a proper height to vault.

"This change is something to view with equanimity if we have kept any of the talents of our earlier years from under the bushel. The lessons to be remembered are that adolescence prolonged into middle age is sometimes silly; that the scars which time inflicts are apt to slow down the machine and necessitate its direction into less swift streams of traffic; that we must use our heads to save our heels; and so on. It might be accepted as something close to an axiom that everyone who lives long enough grows old in time.

"Plenty of attempts have been made to rationalize the whole business of, shall we say, maturing,

despite or on account of its perfectly obvious inevitability.

'Grow old along with me,
The best is yet to be. . .'

is a typical, if somewhat dubious, example. Pitkin's *Life Begins at Forty* is a serious attempt to reconcile to that roaring decade the young man about to enter it.

"The mistake that we see too often is that of making no provision for a change in tempo, of assuming that we are going on engaging in the same occupation in the same manner until we drop in the traces or arrive at that questionable state of existence known as retirement. What is happening now to our retired colleagues, no doubt to the delight of most of them, is that they are being taken from the shelf, dusted off and shaken clear of moth crystals, and put gently back to work.

"It is the spirit that must be kept young while the activities are tempered to the accumulating decades, and the expanding resources of the individual's experience are made available. Samuel Johnson referred to the necessity of keeping his friendships in repair. Cato studied and, we are told, learned Greek at eighty. In that memorable story, 'The Miracle of Purun Bhagat,' Kipling depicts the unfolding, the development, and the fulfilment of a fruitful life—twenty years a youth, twenty years a fighter, twenty years a statesman, and then the begging bowl and the evening of life devoted to contemplation and the eventual service of mankind in the high Himalayas."

The begging bowl at sixty may appeal to the senescent New Englander; but, with apologies, we will trail along with Sir William Beveridge. And what have the high Himalayas got, except a little more height, that we lack in the Empire State? We will do our contemplating and service to mankind right here. Our begging bowls were contributed to the scrap drive long ago, and the records of our District Branch meetings showed⁵ that attendance in 1942 in the age group 64 to 72 was 15.66 per cent of the total; in the 75 to 84 group, 2.53 per cent; and in the 85 to 94 group, 0.17 per cent. We were "dusted off and shaken clear of moth crystals" way back in 1942. Contemplation, say you? Retirement? Out for the duration! Come on, Bunker Hill, we have a job to do!

1. Detroit Medical News, March 15, 1943.

2. Rocky Mountain M. J., March, 1943, p. 160.

3. Juvenal: Satire, 3, 76.

4. New England J. Med., March 4, 1943.

5. New York State J. Med. 42: 2289 (Dec. 15) 1942.

Medicine in the News

From the *Detroit Medical News*¹ we reprint excerpts from "Be Careful with That Monkey Wrench," with our sincere compliments to the authors, Mr. S. Wells Utley and Mr. B. B. Geyer. From "The American System":

"Having reached a position where her economic and industrial life is pre-eminent in the world's history; where her standard of living incites both the wonder and admiration of every other industrial people, as evidenced both by their desire to imitate it and by the desire of their individuals to come to her shores; having reached a point of affluence where her people, both rich and poor, have more of the necessities of life, share more generously in its luxuries—eat better food, have better homes, wear better clothes—than do any other people; where they are better educated, possessed of greater opportunities for travel and enjoyment, are better taken care of when sick or incapacitated than any people have ever been; where the individual has more personal liberty and economic security, more opportunity for culture and for leisure than has ever fallen to the lot of man before; notwithstanding this pre-eminent position, many of her people present the strange paradox of seeking, with an intensity of effort which is almost fanatic, to discredit and discard the principles which have produced this success, and to substitute for them principles imported from foreign shores, which principles have failed miserably to achieve a like success in the nations where they have been tried."

From "Until I Come Back":

"We're over 20,000 feet now (the coffee's frozen in the thermos) and that's the Zuider Zee below. We must be halfway across Holland.

"Funny thing what happens to a fellow. . . .

"Those are the same old stars and the same old moon that the girl and I were looking at last Christmas.

"And here I am—flying 300 miles an hour in a bubble of glass, with ten tons of TNT.

"Somehow—this isn't the way I imagined it at all, the day I enlisted. Don't get me wrong—sure I was sore at the Japs and the Nazis—but mostly, it was the thrill of the Great Adventure.

"Well, I know now—the real reasons—why I'm up here paying my first call on Hitler.

"It's only when you get away from the U.S.A. that you find out what the shootin's really about and what you're fighting for.

"I learned from the Czech chap in London, the refugee, the nice old fellow who reminded me of Dad except for the maimed hands. I was dumb enough to ask about it. 'I got that,' he said, 'for writing a book the Nazis didn't like. . . .'

"Then there was the captured German pilot who screamed and spit when Izzy Jacobs offered him a cigarette. . . . How do fellows get that way?

"And that crazy Polish pilot—the fellow who rammed the Messerschmitt. After the funeral I learned what was eating him. Seems as how he has a sister in Warsaw who had been sent to a German Officers' Club. . . .

"I hope to hell Hitler's home tonight . . . light and wind are perfect.

"Yes, sir, I've met 'em by the dozens over here—guys warped by hate—guys who have had the ambition beaten out of them—guys who look at you as if you were crazy when you tell 'em what America is like.

"They say America will be a lot different after this war.

"Well, maybe so.

"But as for me, I know the score. . . . you learn fast over here. I know now there's only one decent way to live in this world—the way my folks lived and the way I want to live.

"When you find a thing that works as good as that—brother, be careful with that monkey wrench.

"And there's one little spot—well, if they do as much as change the smell of the corner drug store—I will murder the guy.

"I want my girl back, just as she is, and that bungalow on Maple Avenue. . . .

"I want that old roll-top desk of mine at the electric company, with a chance to move upstairs, or quit if I want to.

"I want to see that old school of mine, and our church, just as they are—because I want my kids to go there.

"That's my home town. . . .

"Keep it for me the way I remember it, just the way I see it now—until I come back."

. . . .

The *Rocky Mountain Medical Journal*² comments editorially on the question: Has the specialist a place in the wartime effort, either in the military service or in civilian practice?

"In the field of civilian practice, it is difficult to see how specialists who already are working twenty-four hours a day, doing most efficiently the things they are best qualified to do, could better serve the home front and the war by attempting to do the many other medical jobs with which they are not familiar, and which they are not qualified to do.

"Without wishing to detract in any way from the many virtues which have been attributed, and justly so, to the traditional 'old family doctor,' and at the risk of a charge of heresy, we feel that the medical interests of the population as a whole could

THE MANAGEMENT OF THE CERVIX IN THE TREATMENT OF FIBROMYOMA OF THE UTERUS

JAMES A. CORSCADEN, M.D., New York City

THE importance of the cervix in the management of fibromyoma of the uterus is being established by the discovery of a significant number of benign and malignant lesions which have occurred in cervical stumps following supravaginal hysterectomy. This and the wider spread of familiarity with the anatomy of the pelvis and the technic of complete hysterectomy have brought about an increasing practice of performing this operation for benign uterine conditions. There is, however, some disagreement as to whether the lesions found in the cervical stump are of sufficient importance to justify the routine employment of complete hysterectomy. From the evidence at hand and from our own experience we have come to the conclusion that the cervix should receive careful attention when treatment of any kind for a fibromyoma of the uterus is contemplated, and that the incidence of important conditions in the cervical stump makes complete hysterectomy the procedure of choice when removal of the uterus is deemed necessary.

The incidence of diseases of the cervix associated with fibromyoma has been fairly accurately determined. Acute inflammations, chronic cervicitis, polyps, and other benign conditions occur with about the same frequency as in the non-myxomatous uterus, with the exception of childbirth injuries, which are found less frequently, possibly because of the relative sterility of myxomatous uteri. Although rare, fibromyoma of the cervix nevertheless presents important problems in therapy whenever it is encountered.

Carcinoma of the cervix is present in about 2 per cent of the myxomatous uteri treated at a gynecologic clinic.^{1,2,3,4} This may not indicate the actual statistical coincidence between fibromyoma of the uterus and carcinoma of the cervix because most of these specimens were removed from patients applying for treatment of symptoms of which uterine bleeding is the most frequent, and because often the carcinoma so dominates the picture that a small- or even moderate-sized fibroid may not be mentioned in a report. For practical purposes, however, this figure should be accepted because it is with such cases that the therapist has to deal.

Diseases of the cervical stump are in general no different from those present in the intact uterus. Of peculiar interest is bleeding of a

functional nature from endometrium left *in situ* when the body of the uterus was removed. When this is done deliberately on the theory that continued menstruation insures a healthier and more prolonged ovarian activity, the bleeding may present no greater diagnostic difficulty than that from any menstruating uterus. When it is unexpected or when the bleeding is irregular it is a matter of considerable worry to both the patient and the diagnostician and usually requires some treatment. A persistent, more or less disabling leukorrhea, so often a sequel of supravaginal hysterectomy, may be a continuation of a pre-existing condition or may appear anew because of the trauma and infection of the endocervix incident to the operation.

Fibromyoma of the cervical stump is rare but important because it is apparently less amenable to the effect of the artificial menopause than tumors of the myometrium and because of the technical difficulties encountered during its removal.^{5,6,7,8} (See Case 3.)

Carcinoma of the cervical stump is a condition encountered regularly in any gynecologic tumor clinic. The actual incidence is uncertain. Most of the reports of conditions in the cervix following large series of supravaginal hysterectomies will not stand statistical analysis. Merely to mention that, following 5,000 hysterectomies, carcinoma of the cervix has appeared in a certain number of cases is not sufficient. At least some minimum follow-up interval (ten years) must be taken, and other statistical requirements must be met before these figures will have any validity.

With these reservations in mind, we note that Scheffey⁹ found carcinoma in 0.9 per cent of 554 cases; Henriksen,¹⁰ in 6,550 cases of supravaginal hysterectomy, without mention of the total number of cases followed, found 26 cases, (0.45 per cent); Behney¹¹ in the discussion of his paper, quotes Lincoln, 6.5 per cent, Lahey, 2 per cent, Sejourner,¹² 1.9 per cent, White, 1.8 per cent, Richardson, 1.0 per cent, Von Graef,¹³ 0.62 per cent, and Hennington (18,712 cases),¹⁴ 0.57 per cent. One concludes from these incomplete studies that the incidence of carcinoma in a cervical stump following supravaginal hysterectomy is somewhere between 1 and 2 per cent.

A second method of determining the frequency of carcinoma of the cervical stump is to compare it with the frequency of carcinoma of the cervix in general. Table 1 gives such a relationship

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942.

The Adolescent in Industry

In time of war, shortage of manpower for essential industries is a major problem. A normal solution is the employment of those of both sexes who are too young for purposes of war. Such a procedure carries with it not only occupational risks but also hazards due to the subjection of the actively growing adolescent to labor conditions. Great progress has been achieved in controlling industrial exposures to toxic substances by means of medical and engineering feats, but the enforced entrance of the adolescent into industry may render previously appropriate standards insufficient.

Owing to inherently greater metabolic requirements, immature persons breathe a greater volume of air per unit of time, per unit of body weight. Consequently, a given atmospheric concentration of a toxic substance will have a more injurious effect on the adolescent than upon the adult. Not only pulmonary ventilation but the rate of circulation is greater in the young than it is in the mature adult.¹ This factor enhances and adversely influences the rate of adsorption of certain toxic substances.¹ In addition, evidence has been gathered that the mechanism of detoxification is less effective in a growing individual.² It has been demonstrated for certain aromatic compounds that detoxification involves the withdrawal from body tissues of sulfur containing amino acids

essential to growth. Continuous breakdown of such amino acids by toxic chemicals may stunt the growth of a young organism.³ Involvement of other nutrition essentials, notably vitamin C, during exposure to noxious compounds, may further deprive the adolescent of important growth factors.²

We can conclude that growing boys and girls, because of physiologic factors, are more susceptible to injury from industrial poisons. It is fundamental that positions in industry should be allocated to the young adolescent with great care and circumspection. Fully cognizant of these facts, the Children's Bureau has initiated appropriate measures to safeguard the welfare of our young.⁴ The physician in industry shares the responsibility of guaranteeing the proper maturation of the adolescent in industry. He should be thoroughly familiar with the above vital facts. It ultimately rests with him not only to supervise but also to guide the adolescent into his proper industrial niche so that the nation can safely produce its maximum during war.

1. Henderson, Y., and Haggard, H. W.: *Am. Chem. Soc. Monograph Series*, No. 35, New York, 1937.

2. Stekol, J. A.: *Ann. Rev. Biochem. Ann.*, Stanford Univ. Press, Vol. 10, 265, 1941.

3. White, J., and White, A.: *J. Biol. Chem.* 131: 149 (Nov.) 1939.

4. Schmidt, W. M.: *J. Pediat.* 22: 121 (Jan.) 1943

Correspondence

MEDICAL DEPARTMENT
U.S. NAVAL AIR STATION
QUONSET POINT, R.I.
February 25, 1943

Editor

NEW YORK STATE JOURNAL OF MEDICINE

Dear Sir:

In your editorial, "Status of Physicians, 1942" (*NEW YORK STATE JOURNAL OF MEDICINE*, February 15, 1943) you deplore the many deaths due to cardiovascular disease among trained and experienced physicians. You stated that "the present time of national necessity seems to us appropriate for a study of these questions." You then ask, "Is anybody interested?"

I have been much interested and have published a dietary form of treatment that has proved extremely effective in cardiovascular disease. The treatment and its rationale were published in an

article titled, "The Control of the Anginal Syndrome with a Low Carbohydrate Diet," in the *Medical Annals of the District of Columbia*, October, 1941.

I have been able to follow up patients for as long as four years and can report that they are still free of anginal attacks which, before treatment, were severe and frequent. The diet afforded not only relief from anginal seizures but also lowered the blood pressure in patients with hypertension.

It is to be deplored that a new and effective treatment for such a serious disease has not been utilized by physicians. And if physicians have not seen fit to use it for themselves how can valuable men in other professions and hard-pressed executives in business and government expect to be protected from untimely death?

I trust that failure to use this new treatment is to be attributed to a healthy skepticism and not to indifference.

Yours very respectfully,
LT. BENJAMIN P. SANDLER, M.C., U.S.N.R.



Fig. 1. Photomicrograph of normal endocervix to show that there is a single layer of columnar epithelium resting on solid fibrous tissue.

Fig. 2. Photomicrograph of a portion of the cervix of a uterus removed by complete hysterectomy showing increase in number of cells, slight alteration in size, hyperchromatization, and beginning invasion.

Carcinoma of the cervix is usually obvious but in many cases presents a difficult diagnostic problem. Meigs¹⁹ reports 8 cases of carcinoma of the cervical stump following supravaginal hysterectomy for postmenopausal bleeding. Fricke²⁰ reports 9 of 57 cases of carcinoma of the stump following supravaginal hysterectomy for "suspected malignancy." In 30 to 40 per cent of the "stump" cases, the carcinoma was present at the original operation.

The possibility, then, of a carcinoma of the cervix complicating a large myomatous uterus requires a continued alertness for cancer. In the preliminary examination it occasionally may be wise to take a biopsy of a suspicious area. Usually, and especially if bleeding is a symptom, the biopsy of the cervix should be taken when the curettage is performed. The small bit otherwise obtained may give a false sense of security.

Before the incision is made for the hysterectomy, carcinoma of the cervix must have been definitely ruled out. A complete or even supravaginal hysterectomy could probably remove a small carcinoma of the corpus but would usually be futile if cervical carcinoma were present. Accordingly, a "fractional curettage" is performed. First the cervix is curetted to avoid losing a small bit of tissue from the cervical canal in a large volume of endometrium. Not until the condition of the cervix is established is the remainder of the curettage carried out. Fig. 1 is a photomicrograph of a normal cervix. The firm, fibrous bulk of the cervix is covered by a single layer of cuboidal epithelium which would yield nothing to the curette. Therefore, ob-

taining any tissue at all must be regarded as suspicious. Whether to rely on the gross appearance of this piece or to defer the hysterectomy for the microscopic report is the responsibility of the surgeon, but the hysterectomy must not be started until the possibility of cancer of the cervix has been ruled out. Since about 2 per cent of fibromyomata in uteri seen in the operating room will also contain a carcinoma of the cervix, this precaution must always be taken. In the obvious case there will be no difficulty, but with the small cancer or even a well-established endocervical cancer, the routine just described becomes vital. Of the nine cancers occurring in the stump following hysterectomy performed in this hospital, five were present at the time and discovered in the pathologic examination. Some of these were so tiny that they might have been overlooked by any procedure, but the others would have been discovered by preliminary, punctilious examination of the cervix and endocervix.

Once the diagnosis of carcinoma is established, further procedure depends upon the clinical importance of the fibromyoma. Usually this can be ignored. Even if it is large, it will not interfere with the radium or x-ray therapy. The radium will care for the tissues near the midline and the x-ray those of the parametrium. The mass of the myoma will protect, to a certain extent, the rectum so that larger doses of radiation may be applied to the parametrium.

Rarely, degeneration or the suspicion of a sarcoma in the fibroid or the location of the myoma in the cervix might demand radical treat-

TABLE 1.—INCIDENCE OF CARCINOMA OF CERVICAL STUMP

Authors	All Cases	Stumps	Percentage
Behney (1940)	910	43	4.7
(1940)	1,117	24	2.15
Ward (1941)	879	61	6.9
Von Graef (1934)	4,269	176	4.1
Fricke (1940)	1,676	108	6.4
Scheffey (1940)	369	18	4.8
(Behney)			
Pemberton (1940)	780	10	6.0
(Behney)			
Masson (1940)			4.4
Sloane Hospital	535	38	7.1

and shows an average incidence ranging between 4 and 5 per cent.

Whatever the precise incidence of carcinoma associated with fibromyoma of the uterus or occurring in the cervical stump is, it looms as an important figure. The argument that, even if it does occur, the results of radiation are good (40 per cent five-year survival) is small comfort.

Management of Diseases of the Cervix Complicating a Myomatous Uterus

Acute inflammations spreading to the adnexa, occasionally seen with fibromyoma, are treated independently of the fibroid, and when they become chronic and require surgery, they are usually best managed by removal of all the pelvic organs.

The treatment of chronic cervicitis, old lacerations, and erosions depends upon the clinical importance of the fibromyoma and the treatment planned for it. When, especially in women in their forties, the myoma is clinically insignificant, small, and symptomless, the cervix is treated, regardless of the fibroid, by cautery, high frequency excision, amputation, or a plastic operation, the indications for the treatment depending upon the condition of the cervix, the possibility of future pregnancy, etc.

Second, a fibroid may be of slight clinical importance (moderate size with moderate menorrhagia) and at the moment in need of no radical treatment. Associated with it, however, is a lacerated, eroded, and inflamed cervix in need of active therapy. While this might be treated by cauterization or excision by high frequency, the best treatment is often a complete hysterectomy which disposes of both conditions. (See Case 4.)

A third group of cases includes those myomata which would be satisfactorily treated by a radiotherapeutic menopause (in women to whom the artificial menopause is acceptable, with the uterus small and bleeding as the principal symptom). Under an anesthetic, after a diagnostic curettage, the cervix is appropriately treated and the patient subsequently is given a sterilizing dose of x-ray. Radium is not often employed because of the possibility of infection

due to the opening up of infected tissues of the cervix and the possibility of interference with wound healing, although we have seen no case in which this has occurred.

The fourth group includes those cases in which operation is indicated, tumors of large size, signs of degeneration, bleeding from submucous tumors, pain, urinary disturbances, or evidence of adnexal inflammation or neoplasm. One has the choice of four procedures: (1) a preliminary cleaning up of the cervix by cauterization or high frequency, with the idea that such treatment is adequate prophylaxis against subsequent carcinoma; (2) at the operation a preliminary amputation or cauterization of the cervix followed by a supravaginal hysterectomy; (3) a supravaginal hysterectomy with immediate or postoperative cauterization of the cervix; or (4) a complete hysterectomy, abdominal or vaginal. Selection of any of these procedures would depend on its purpose. For the treatment of symptoms caused by the diseased cervix, such as discharge or even pain, any of the methods may suffice, provided that they are thorough. For prophylaxis against subsequent carcinoma, cauterization is unsatisfactory.^{15,16,17} Amputation of the cervix may protect from carcinoma in the stump but when it is combined with supravaginal hysterectomy, it requires more time than complete hysterectomy. If all the endocervix is removed, the two operative fields will overlap, and the sutures in the cervix may be cut. It is simpler to control the cervical branches of the uterine vessels and remove the organ. Another point in favor of complete hysterectomy is the more effective plastic repair of the pubocervical, sacrouterine, and cardinal ligaments in cases where there is a tendency to prolapse.¹⁸

Fibromyoma of the cervix is almost universally treated by complete hysterectomy and needs little comment. Radiotherapy seems not to reduce adequately a fibroid in this region. I have had experience with only 2 such cases. (See Cases 1 and 3.)

Polyps are easily removed, whatever the treatment planned for the fibroid. If hysterectomy is to be performed, it is advisable either to remove the uterus immediately or to allow several weeks to intervene. In a study of the mortality of supravaginal hysterectomy, there was a high percentage among the peritonitis cases in which preliminary minor operations on the cervix had been performed a week or so previous to the hysterectomy. It seemed possible that in the inflammatory process following the minor operation on the cervix, the virulence of organisms may have been raised and that, when the uterus was removed, these organisms invaded the peritoneum.

has not been a cause of complaint. Libido and orgasm have apparently not been affected.

Analysis of the studies on the mortality of complete and supravaginal hysterectomy reveals a fairly consistent picture. In many reports the mortality for complete hysterectomy is lower than that for supravaginal hysterectomy. Newell and Scrivner,²⁴ reviewing these figures, found that five authors reported a lower mortality for complete hysterectomy than that for supravaginal hysterectomy, two reported the same mortality rate for either operation, and three reported a lower rate for the incomplete operation. In nearly all reports the mortality is in inverse proportion to the number of operations of each type. McDonald²⁵ reports a mortality of 2.75 per cent for 145 cases of supravaginal hysterectomy, and 0.67 per cent for 2,355 cases of complete hysterectomy for benign conditions. Siddall and Mack²⁶ report a mortality of 6.4 per cent for 235 cases of complete hysterectomy and 2.6 per cent for 1,141 cases of supravaginal hysterectomy. These figures are probably typical of most institutions where the complete operation is performed only for exceptional conditions. At the Presbyterian and Sloane Hospitals the rate for 1,279 cases of supravaginal hysterectomy for all benign conditions of the uterus and all conditions of the adnexa was 2.7 per cent, and for uncomplicated fibroids 2.3 per cent; the rate for 58 complete abdominal hysterectomies for benign conditions was 8.6 per cent. Since the change of policy to the routine performance of complete hysterectomy, there have been no deaths but the number of cases is too small to be significant.

At first glance one would infer that the higher mortality for complete hysterectomy is due to lack of experience and that only by performing many operations could it be lowered. On closer study, it will be seen that a group reporting 1,000 or more hysterectomies is not inexperienced. Moreover, Newell and Scrivner²⁴ point out in their report that the mortality in cases operated upon by the two most experienced surgeons of the staff was 3.4 per cent, while that of the other twenty-five members was 1.5 per cent. Siddall and Mack²⁶ make a similar observation. In our experience, since being converted to the policy of performing complete hysterectomy for fibromyomata, and after taking the trouble to study the few essential points in anatomy and technic, we have been able to instruct the residents so that they now perform the operation with confidence and precision.

We conclude, then, that the generally higher mortality following complete hysterectomy is due not so much to lack of surgical experience as to lack of attention to a few basic details, particularly the blood supply of the cervix, and the

fascial structures about the cervix, the bladder, and the ureter.

The teaching—even by some who habitually perform the complete operation—that supravaginal hysterectomy is the ideal operation is unsound. This recommendation is based on the idea that most myomata will be operated upon by surgeons of limited gynecologic experience and that in their hands the complete operation would do more harm than good—in other words, that the standard should be based on expediency rather than on the ideal procedure. This is no compliment to those having the responsibility of treating fibromyomata. If, as seems to be the case, the cervical stump is something of a menace, and if, in capable hands, complete hysterectomy is the best operation for fibromyoma, this should be set as the standard. Having such a standard, the individual surgeon can conduct himself accordingly. Gynecologists and general surgeons who practice gynecology will have little difficulty in acquiring adequate technic. The “casual” or “occasional” operator will be guided by his own self-appraisal. Certainly no resident should be graduated from a gynecologic organization without being familiar with the details of the operation of complete hysterectomy.

Conclusions

1. Diseases of the cervix so frequently associated with fibromyoma of the uterus must be accurately diagnosed and properly treated.

2. The operation of complete hysterectomy can be learned by any surgeon qualified to perform a supravaginal hysterectomy.

3. The frequency with which important diseases occur in the cervical stump following supravaginal hysterectomy, regardless of the original condition of the cervix, warrants the practice of routine complete hysterectomy for fibromyoma of the uterus.

Case Reports

Case 1.—A woman of 45 with a multilobular uterine mass the size of a six-month pregnant uterus was treated by a sterilizing dose of x-ray for obesity and hypertensive cardiovascular disease. The upper portion of the mass disappeared but there remained in the lower uterine section a mass 10 cm. in diameter, which remained unchanged for two years. Because of a gradual descent of the mass into the vagina and because of the accompanying pressure symptoms, a complete abdominal hysterectomy was performed. Perched on top of the cervical myoma was a uterus below average in size, containing no gross myomata. The masses in the upper portions of the uterus had evidently disappeared. The cervical mass was not noticeably reduced.

Case 2.—A woman of 42 had a supravaginal hysterectomy for fibromyoma of the uterus. Con-

ment. If so, a Wertheim hysterectomy is to be considered.²¹

Still more rarely a carcinoma of the cervix will be treated by radiation and the fibromyoma of the uterus later operated upon. (See Case 5.) This is bound to be rare because the amount of radiation necessary for the treatment of the carcinoma will automatically produce an artificial menopause and a satisfactory reduction of the fibromyoma.

Management of Lesions of the Cervical Stump

Persistent bleeding from the cervical stump from residual endometrium presents a difficult diagnostic problem. Polyps and carcinomas must be ruled out, usually by an examination under an anesthetic. Treatment is either destruction of the endometrial tissue by excision, cautery, high frequency, chemical caustics (zinc chloride), or by a radiotherapeutic menopause. If the latter is acceptable, it is by all odds the best method. (See Case 2.) Cauterization or excision of tissue in the very summit of the cervical canal is a ticklish procedure because of the proximity of hollow viscera. Chronic cervicitis, with its disagreeable mucous leukorrhea, is a frequent complication following supravaginal hysterectomy. It can be cured only by destruction of the cervical glands, usually by high frequency, with the risks above mentioned.

The treatment of fibromyoma of the cervical stump is attended by many technical difficulties.^{5,6,7,8} If large, the tumor must be removed abdominally; if small, it may be enucleated but with considerable risk of hemorrhage. In our case (see Case 3), the artificial menopause was unsuccessful.

Carcinoma of the cervical stump is treated by radiation. The radium dosage is calculated with especial attention to the application of the law of inverse squares if radium is inserted into the cervical canal. Even with cautious treatment, the incidence of fistula is high. The end results by and large are excellent (40 per cent five-year survival).

Prophylactic Complete Hysterectomy

It can be demonstrated by no greater distortion of statistics than is frequently seen in medical literature that the removal of the uterus of every woman finished with childbearing would protect her from subsequent disability or loss of life with proportionately little danger to herself.

Such a radical proposal at this moment would not be accepted by any lay or medical group. However, once the removal of a uterus has begun, the element of prophylaxis enters the picture.

One must decide (1) whether the diseases found in cervical stumps are of sufficient number and importance to require a routine complete hysterectomy, (2) whether only certain of the lesions presumably the site of chronic irritation (chronic cervicitis, lacerations, erosions, and eversion) should be removed, or (3) whether the cervix should be ignored. Of these three policies the majority of doctors favor the middle course, believing that the diseased cervix predisposes to a subsequent cancer and that the normal-appearing cervix is innocuous. The evidence seems to be against this policy. Fig. 2 shows the condition of the cervical epithelium in a woman operated upon by complete hysterectomy for fibromyoma. A careful curettage of the apparently normal cervix preceding the hysterectomy had yielded nothing. While few would call this a definite epidermoid carcinoma, they would observe some cytologic evidence of malignancy and an apparent beginning invasion. Such lesions as these may be the precursors of true cancer.

The parity of the women is of no help. Twenty-five per cent of the carcinomas in the cervical stump are in nulliparous women.^{13,15,22} Of our 38 cases, 10 were in nulliparous women. Among cases treated by us with radiation for myoma and uterine bleeding, carcinoma of the cervix was discovered later in 5. In every case there had been a diagnostic curettage and examination under anesthesia. Of the 5, 2 were nulliparous, and in 4 the cervix was grossly normal at the time of the original treatment.

A ratio of one nulliparous to three parous would indicate that the nulliparous or normal-appearing cervix is by no means immune to carcinoma. Moreover, the conventional and casual statement—which has never been backed by careful statistical analysis—that birth injuries predispose to carcinoma is being challenged more and more²³ since groups organized for the treatment of cancer have undertaken more careful study of the disease. I am forced to conclude, therefore, that the decision to perform complete hysterectomy for fibromyoma of the uterus should be based on a general policy of prophylaxis and not upon the presence of visible so-called precancerous lesions.

Granting that the incidence of from 1 to 2 per cent of carcinoma and the occurrence of less serious but disabling conditions in the cervical stump would make such a general policy desirable, how much greater is the risk involved in undertaking the larger operation? All agree that the morbidity following complete hysterectomy is greater than after supravaginal hysterectomy. The sequelae are not important. In our experience, dyspareunia because of a short or a dry vagina

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MODERN HYDERABAD HOSPITAL USES MOSLEM SPECIFICS OF POWDERED GEMS

Hyderabad, India.—Like Cleopatra, this writer has just swallowed some pearls. A correspondent's coverage of India would not be complete without a brief study and description of the ancient systems of medicine still used by perhaps nine of ten natives of this country. It is further evidence that India must not be judged in terms of Western thought, which many Indians disagree with and do not want.

Here in Hyderabad is a unique hospital founded by the Nizam to practice the Moslem Unani system of medicine. This system has been handed down through many centuries from the Greeks and Arabs. The Nizam, like most Moslems, is a firm believer in it.

The Hindus use a somewhat similar system called Ayurveda. Where Ayurvedic pharmacopeia uses mercury and sulfur as its bases, however, Unani uses sugar and honey. Moreover, the Hindu system also relies on prayers, spells, and witchcraft, whereas Unani is a purely empirical system, based on uncounted experiments on human beings over a millennium.

The chief peculiarity of the Unani system is that it uses oxidized jewels, mixed with an extraordinary variety of Indian herbs, dried fruits, and the inevitable honey and sugar. Pearl ashes are prescribed as the best form of calcium and a sovereign tonic. The mixture tastes delicious.

Unani practitioners claim that jewels provide chemicals in their purest form and have some virtue beyond their chemical composition. When

oxidized they all turn into a white or slightly brownish powder. Needless to say, they are costly.

Emeralds are esteemed as the best medicine for the liver and kidneys. Rubies are recommended for the heart, coral for asthma and the brain, and diamonds for external use. Gold oxide is prescribed for tuberculosis and the potency of silver oxide for heart ailments is highly regarded.

It all sounds weird to a Westerner, but Indian doctors point out that the allopathic system, as they call it, has borrowed much from Indian medicine.

The Hyderabad Hospital would stand comparison with any in the Western World. It is modern and spotless, and elaborate records of patients are kept. There is an operating room, but whenever possible cures are effected without surgery.

Malaria patients appear to be recovering without quinine. In the dietary regime, the latest discoveries in calories and vitamins are being used. So it goes all along the line.

One must guard against thinking that Indian medical practices are the fruits of ignorance. When such a scientist as Sir Chandrasekhara Venkata Raman, just to mention one, speaks as highly of the Ayurvedic and Unani systems as he did to this correspondent in Bangalore, it is not for the uninitiated foreigner to be contemptuous. As so often happens in India, one may come to scoff, but one goes away, at most, dubious.—*Herbert L. Matthews. Reprinted with permission from The New York Times.*

1943 OPHTHALMOLOGY EXAMINATIONS

Examinations will be given by the American Board of Ophthalmology on June 4 and 5 in New York City and on October 8 and 9 in Chicago. Candidates will be required to appear on two successive days. Formal application blanks may be obtained from Dr. John Green, secretary, 6530 Waterman Avenue, St. Louis, Missouri.

CANCEL MEDICAL WOMEN'S MEETING

The annual meeting of the American Medical Women's Association, which was to have been held in San Francisco in June, 1943, has been canceled because of the war. Instead, the board of directors will hold an extra meeting in Chicago on June 5 and 6, preceding the meeting of the House of Delegates of the American Medical Association.

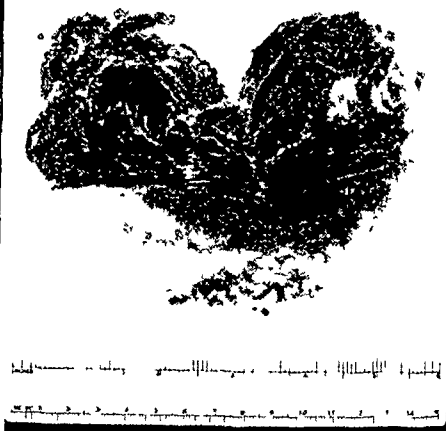
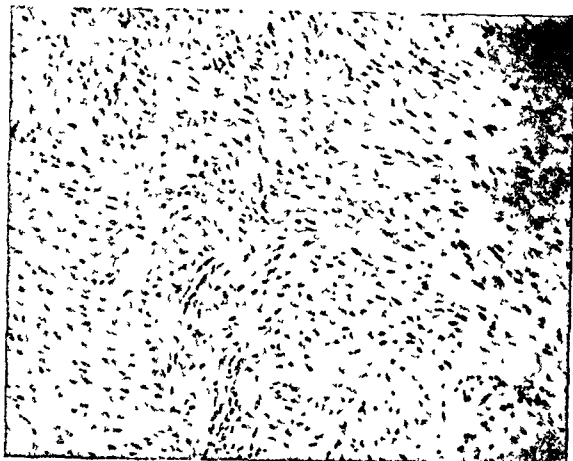


FIG. 3. Photomicrograph of an edematous fibroid of the cervix.

FIG. 4. Photograph of an edematous fibroid of the corpus persisting and increasing in size six years after intensive radiation for carcinoma of the cervix. Microscopic examination showed massive edema.

valescence was uneventful. Six months following the operation there was an onset of bleeding from the cervical stump. This occurred irregularly at intervals of from four weeks to two or three months, lasted usually from one to two days, and was scant in amount. She was referred to the neoplasm clinic, where she was found to have a normal-appearing cervix. Probing of the canal caused slight bleeding. A curettage under anesthesia yielded a few bits of tissue containing a few glands which suggested the structure of a postmenstrual endometrium. She was given 600 r of x-ray anteriorly, 600 r posteriorly, 200 K.V., 50 cm. anode skin distance, 0.5 cu. mm. filtration. The bleeding ceased and has not reappeared in three years.

Case 3.—A woman of 41 was operated upon for uterine tumor by supravaginal hysterectomy. Eight years later she suffered slight heavy sensations in the pelvis. On examination there was a mass between 4 and 5 cm. in diameter in the posterior lip of the cervix, spreading out laterally into the paracervical tissues. Because of fixation and vagueness of outline of this mass, a biopsy was performed (Fig. 3). The tissue was soft, friable, white, and translucent. Because of anticipated surgical difficulties she was given a sterilizing dose of x-ray. The mass increased in size to a diameter of 7 or 8 cm., evidently because of edema. To relieve pressure symptoms, the bulk of the mass was partially enucleated but, because of bleeding, it was not completely removed. After two weeks of draining the wound in the cervix closed. The mass remained about 5 or 6 cm. in diameter. Gradually it was extruded from the cervix and appeared as a pedunculated mass in the vagina. With some difficulty the tumor and the cervical stump were removed.

Case 4.—A woman of 44 with a uterine tumor the size of an eight-week pregnant uterus, who was suffering from moderate menorrhagia and pain in the right groin and upper thigh, had a deep laceration of the cervix with extensive erosion and scars running

into the right paracervical tissue, together with a myomatous uterus which required no immediate treatment. Proper treatment of the cervix would have been high amputation. This would have kept the patient in the hospital for two weeks because of the possibility of secondary hemorrhage. It was deemed wiser, therefore, to treat both the tumor and the cervix by a complete abdominal hysterectomy. Had the uterus been more mobile, this would have been an ideal case for a vaginal hysterectomy.

Case 5.—A woman of 42 with a League of Nations Grade II Epidermoid Carcinoma of the cervix and a uterine mass the size of a three-month pregnant uterus received 70 mg. of radium in the uterus and vagina for 100 hours, followed by 2,000 roentgens of x-ray to each of four fields, given in forty treatments. The carcinoma disappeared. The uterine mass remained the same size. One year after the radiation, a dilatation of the cervix was performed because a pyometra was feared. The uterine cavity was empty. A punch biopsy near the center of the mass, taken from within the uterus, showed fibromuscular tissue. The mass remained unchanged in size until six years after the first treatment, when it became to the size of a four- to five-month pregnant uterus and seemed to fluctuate. By supravaginal hysterectomy, the specimen illustrated in Fig. 4 was removed, a myoma completely altered by cystic degeneration. Convalescence was uneventful.

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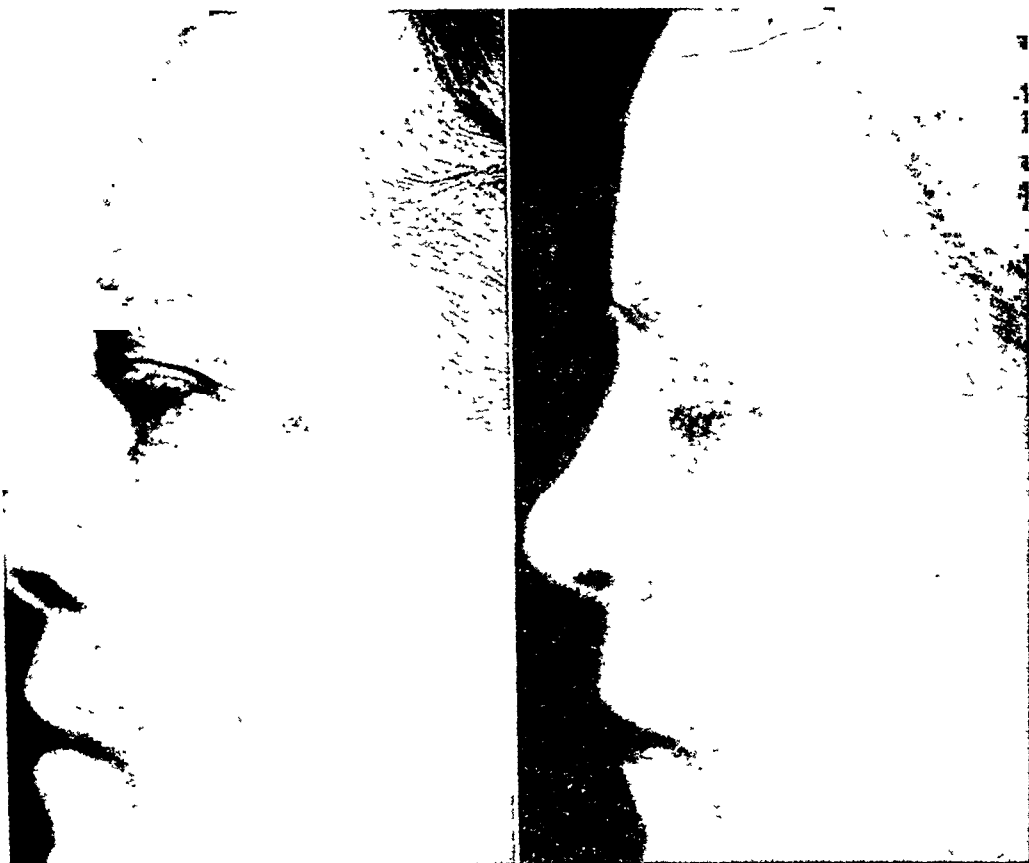


FIG. 1

Case 1. *Postradiation Recurrence*.—Basal cell carcinoma recurrent three times during seven years. Excised and skin graft applied at once. Left photograph shows condition present after third postradiation recurrence. Right photograph shows appearance one year after surgical excision and repair. No recurrence to date ($4\frac{1}{2}$ years).

surgery In certain cases, on the lip, for instance, a combination of radiation of the primary growth and surgical removal of the involved lymph drainage is best.

In any event, whether surgery or radiation is used in the initial treatment of skin cancer, it cannot be overemphasized that the destruction of the growth must be adequate. However, during the later history of cancer of the skin, there are situations that occur where we believe the only chance of arrest of the growth is by radical surgery.

Postradiation Recurrences

One of the most common indications for radical surgery in carcinoma of the skin is a growth which has recurred and persisted in spite of radiation therapy. As I have indicated, initial radiation of these tumors may at times be inade-

quate, and in these instances recurrence is rather prompt. One often finds that one or more recurrences has been treated by further inadequate radiation. Again, in spite of what is usually considered adequate radiation, there are some tumors which recur. We believe that skin cancer which has recurred following repeated inadequate radiation or initial adequate radiation should be radically excised. Such an example is illustrated in the following brief case report.

Case 1

M. C., a white married woman of 42, was first seen on October 26, 1937. Seven years before, a small scaly lesion of the left temporal region had been treated by surgical diathermy and an unknown amount of x-ray. Two years later following a recurrence she received 100 milligram hours of radium. Two and a half years later the growth recurred and she was treated with radium, 100 milligram hours. After this she was free from trouble for eleven

RADICAL SURGERY FOR CARCINOMA OF THE SKIN

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IT IS our purpose to call attention to the fact that there are certain groups of cancer of the skin that are best treated by radical surgery. This mode of treatment presupposes the ability and inclination of the surgeon to repair the damage that destruction of the growth entails.

One of the objections to radical surgical extirpation of skin cancer is the disfigurement and the long waiting period before repair is presumed safe. This is particularly so since many of these growths occur about the face.

We believe that it is much safer than is commonly thought to radically excise these tumors and repair immediately. It is our experience that extensive skin cancer can be satisfactorily eradicated by generously estimating in advance the amount of tissue which must be removed; if necessary, preparing the tissue for reconstruction beforehand, then radically removing the lesion surgically, and at the same time repairing the loss occasioned.

This plan, in certain situations, is the only method of treatment that offers any hope of a fairly high percentage of long arrests of the tumor. In other instances, although the chance of cure is as great by other means, still when all factors are weighed, radical surgery may be the method of choice.

Diagnosis

Before any treatment can be rationally outlined, a positive diagnosis must be made. Often a diagnosis can be made by inspection alone, but it should always be confirmed by microscopic study. It is important to distinguish carcinoma of the skin from benign lesions and to decide whether the growth is of basal or squamous cell type.

Senile keratoses are precancerous lesions. They occur on the face and hands of elderly people. They are plaque-like thickenings of the epidermis, slightly elevated, scaly, and a light yellow-brown color. In early change to cancer they may weep slightly and crust. Basal cell carcinoma occurs predominantly after forty. It is more frequent in the lightly pigmented races and occurs about three times more often in men than in women. It occurs particularly often in those exposed to weather—for example, in farmers. It is often preceded by a precancerous lesion. The majority of basal cell cancers occur

above the level of the upper lip. They are flat, indurated growths, ulcerated in the center, often with a hard, rolled edge. It is chronic, painless, and grows very slowly.

Squamous cell carcinoma of the skin is much less frequent than basal cell. It tends to occur at the junction of skin and mucous membrane. It grows more rapidly, is more indurated, and shows more infiltration. It often involves the extremities, the genitals, the lips, and regional lymph nodes. It occurs in chronically irritated areas, as, for example, in chronic burn scar ulcerations and on the lips of pipe smokers.

Although in the majority of cases, a diagnosis can be made from appearance alone, in early lesions recourse to microscopic examination is the only sure method.

Treatment

Once the diagnosis is made, certain facts must be kept in mind regarding therapy. At present we have but two methods of handling cancer, radiation and surgery. Basal cell carcinoma is quite radiosensitive, squamous cell cancer fairly resistant. Moreover, the lymph node metastases of squamous cell carcinoma, because of their deeper position, are not easily controlled by radiation.

Precancerous keratoses and early basal cell lesions can be satisfactorily handled by radiation with a minimum of effort, expense, and with little disfigurement. However, this initial radiation must be adequate. Too often the first treatment of a relatively insignificant basal cell cancer is given without biopsy, by one who has neither efficient equipment nor sufficient appreciation and knowledge of radiation dosage.

These cancers can also be arrested by surgical extirpation, but again this must be adequate. Superficial electrodesiccation, curetting, or the application of escharotics is not adequate. They must be excised with a sufficient margin of healthy tissue or widely and deeply destroyed by surgical diathermy or cautery. Surgical extirpation is usually more objectionable to the patient than radiation and causes more noticeable scarring.

Squamous cell carcinoma can also be arrested by radiation but with by no means the same assurance. For this reason when the growth is so located—as, for example, on an extremity—that it can be surgically removed without sacrificing a part that will produce disfigurement or derangement of function, surgery may be preferable. Involved lymph nodes are best handled by

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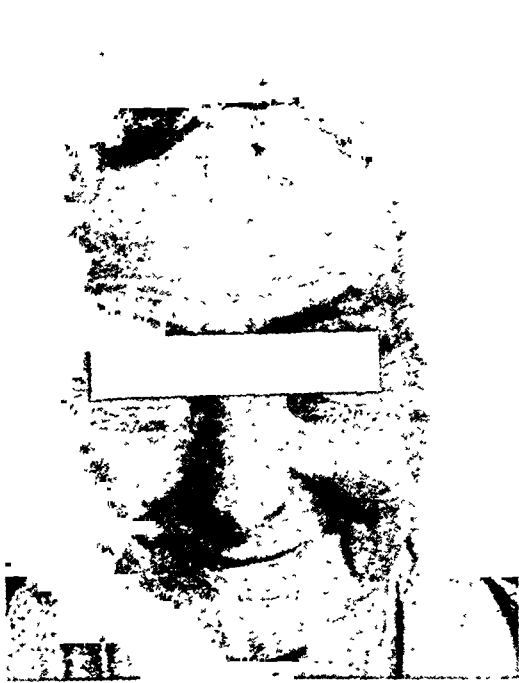


FIG. 3

Case 3. *Extensive Ulceration*.—Left photograph squamous cell cancer when first seen. Right photograph, appearance three months later after primary excision and skin grafting. No recurrence for five years.

ready destroyed tissue of such magnitude that disfigurement is present. Arrest of the cancer by whatever means is chosen causes still further loss of tissue. These patients must have the destroyed tissue replaced if they are to become acceptable, self-supporting members of society. It is our belief that the course of treatment is shorter and repair simpler if radical surgery is resorted to than if the tumor is arrested by radiation and the defect then repaired surgically.

To a certain extent, radiation damages normal tissue near a tumor so that when repair is necessary, the defect must be surgically increased in order to secure edges which have normal healing properties. Moreover, after radiation, months must elapse before the surrounding tissues return to a state in which they will tolerate surgical intervention. If one waits until there is some certainty that tumor is still not present, the time interval before repair can be begun is usually about eighteen months. Repair takes from four to six months more so that it is often two or two and a half years before the patient is again useful.

This treatment period can be greatly lessened in cases of extensive ulceration by excising the growth widely and repairing the defect at once.

Case 3

We first saw E. G., a 79-year-old white woman, in September, 1933. She had a large ulcerated growth involving most of the midportion of the forehead. A small growth had been present for about two years, but during the previous two months it had spread rapidly. A biopsy showed squamous cell carcinoma. Because of the extent of the ulceration surgical excision was carried out. The growth did not extend into the skull. The bone was drilled in order to obtain a granulating bed. Six weeks later the granulating wound was covered with Thiersch grafts. The wound healed nicely. She was followed for five years and had no recurrence.

The long-continued course and the difficulties encountered in primary radiation followed by repair are well illustrated by the following case report.

Case 4

W. B., a 45-year-old, white, married, gasoline salesman came for advice in September, 1933, concerning an ulceration of the right corner of the mouth. This had been present for only six weeks and had grown very rapidly, extending back to the second molar. A biopsy showed squamous cell carcinoma. The growth and neck were treated by x-ray. The patient was given 5,500 r in air in fractional doses and 1,080 mg. hours of contact radium

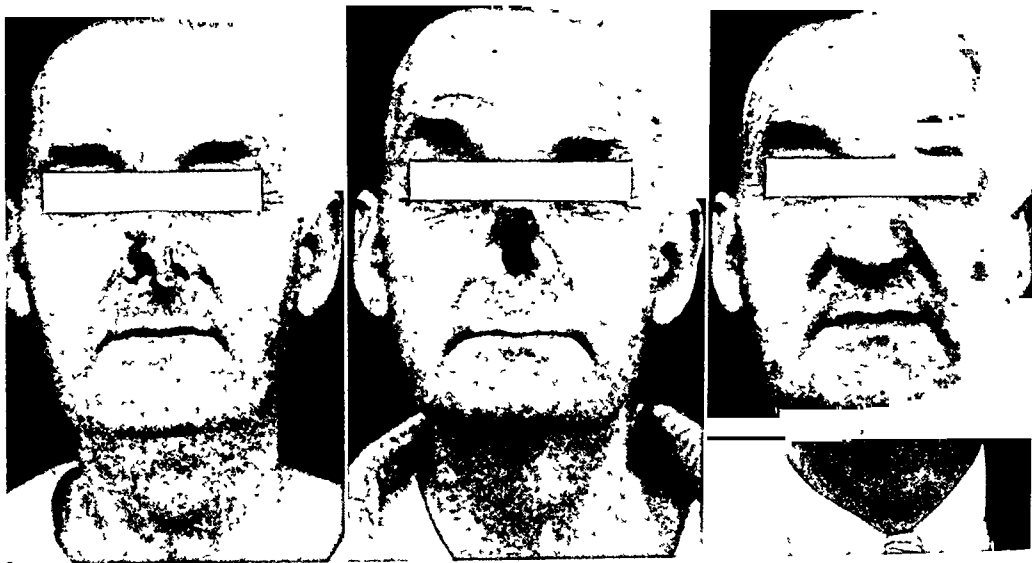


FIG. 2

Case 2. *Persistent, Recurrent Basal Cell Cancer.*—Left photograph, appearance after 30 years of numerous x-ray and electrodesiccation treatments; disfigurement marked, and cancer still present. Middle photograph shows condition after first operative step; forehead flap ready for transfer, tumor destroyed by cautery. Right photograph shows completed repair. Working every day, no recurrence to date (2½ years).

months, and when the growth recurred for the third time she consulted me. She had a typical recurrent basal cell carcinoma with a fairly wide zone of subcutaneous infiltration. This was proved by microscopic examination. The growth was excised with a wide margin of normal tissue about and beneath it and a free skin graft applied. She has had no recurrence for four and a half years.

Persistent, Recurrent Basal Cell Cancers

This group, we believe, should be subjected to radical surgery. It overlaps the group of post-radiation recurrences to a certain extent, but we consider it separately because a number of patients present themselves with a story of repeated recurrences after varied therapeutic agents have been used. These cancers are predominantly about the face, and we presume that the reason for the repeated, obviously inadequate therapeutic attempts, is fear of producing disfigurement. Our answer to this is that uncontrolled rodent ulcer in time causes more destruction and disfigurement than adequate initial treatment. No cancer can be cured by half-hearted methods. A growth on the ala of the nose or one on the lip should be destroyed as thoroughly and widely as anywhere else, but from patients that we see, we have come to the conclusion that there is a tendency to temporize in the initial treatment of skin cancers about the face.

The following case report illustrates long-continued temporizing and the steps finally taken to arrest the growth.

Case 2

H. B., a 59-year-old, single, white expressman, was referred to us for treatment of a long-standing ulceration of the nose. This began about twenty years before. In the intervening time he had received many x-ray treatments, and the growth had been treated with the "electric needle" on numerous occasions. The tip of the nose had gradually been lost until the left ala was completely destroyed and most of the right ala. A crusted ulcer was present over the remaining edges of the nasal tip. A section showed basal cell carcinoma infiltrating the alar cartilage. On January 25, 1940, a forehead flap was elevated and the lower half of the nose and septum burned away with the cautery. Reconstruction of the nose was completed on April 25, 1940, three months later. Four operative steps were used. He has been followed frequently since. To date, almost two and a half years later, there has been no recurrence.

Extensive Ulcerations

Fortunately the number of patients in this group is small, but there are still some patients who, for one reason or another, allow cancer to progress to extensive ulceration before seeking treatment. In this group, the cancer has al-

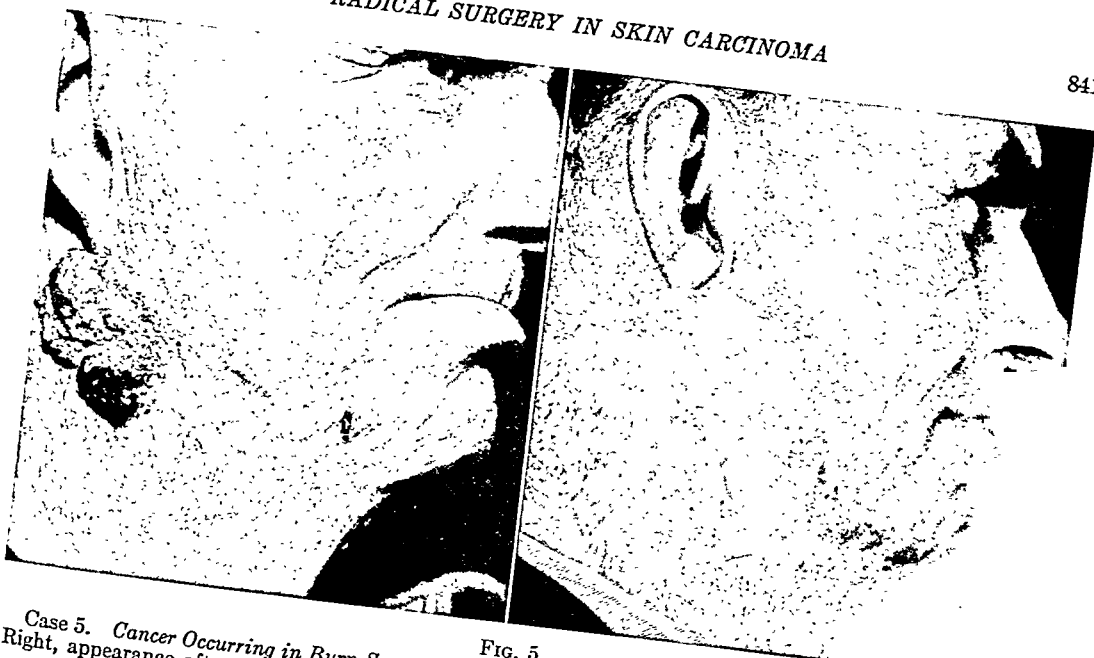


FIG. 5

Case 5. *Cancer Occurring in Burn Scars.*—Left photograph, squamous cell cancer in old burn cicatrix. Right, appearance after radical excision and immediate skin graft. No recurrence to date (2½ years).



FIG. 6

Case 6. *Skin Cancer Invading Bone.*—Left photograph shows many times recurrent basal cell cancer which by x-ray had extended into bones of orbit. Right photograph, result after radical surgery and immediate repair by doubled forehead flap. No recurrence on last follow-up (3 years).

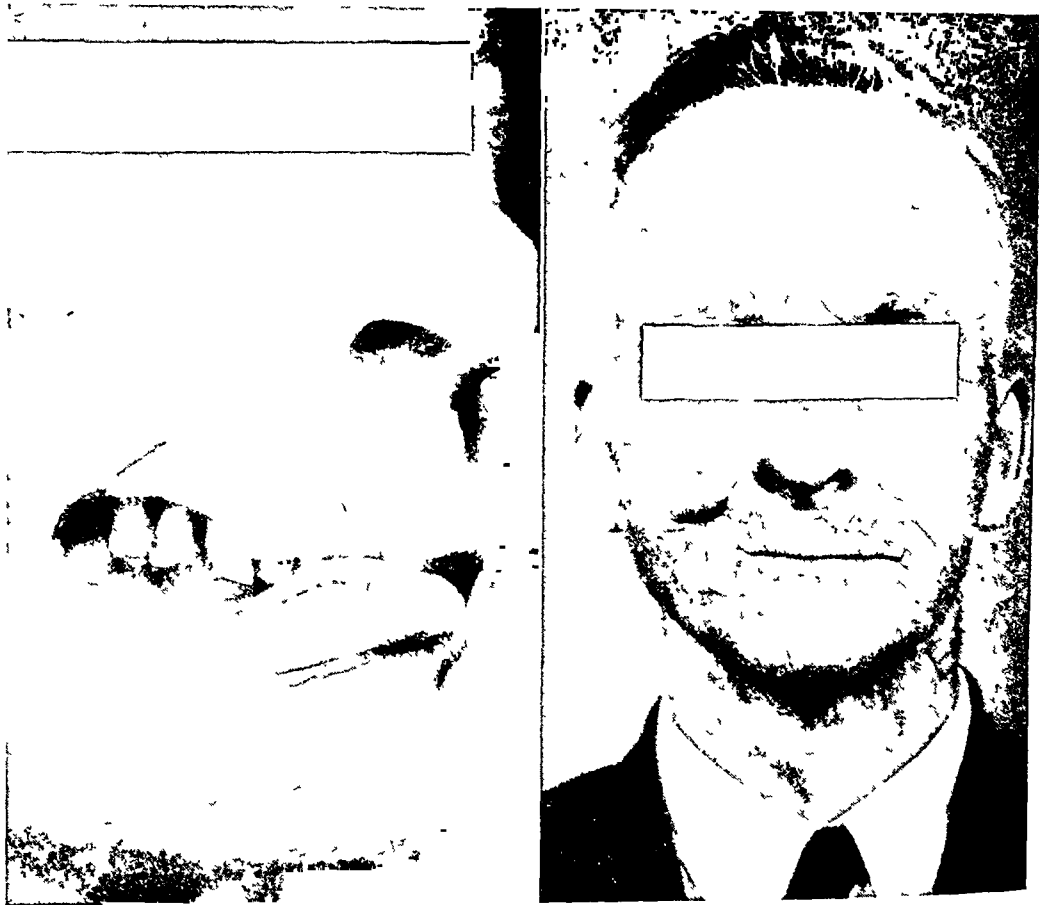


FIG 4

Case 4. Extensive Ulceration—Left photograph shows defect present 1½ years after arrest of squamous cell cancer by radiation. Right photograph, appearance on completion of repair. Time from initial treatment to completion of repair, three years. This time could have been no more than three or four months if lesion had been treated by radical surgery initially. No recurrence, six years.

over the growth. The growth healed. Six months later recurrence was evident, and radium seeds were implanted in the growth. Following this the angle of the mouth sloughed. The edge of the defect healed slowly. In March, 1935, about eighteen months after the first treatment, there had been no recurrence, and surgical repair of the defect was started. This was attended by numerous difficulties. A tube graft was first formed on the neck. This proved to be a mistake, for the tissues had received enough radiation to partially devitalize them. Infection developed, part of the graft was lost, and eventually was entirely discarded. A new flap was developed on the chest and successfully transferred to the face. After fifteen major and minor surgical steps, repair was finally completed in October, 1936. The entire period of treatment was just about three years. Fortunately the growth was permanently arrested—at least he was last seen in October, 1940,

six years after onset, and there was no recurrence at that time.

Cancer Occurring in Scars

There is, I believe, practically complete agreement that cancer arising in old burned areas and in skin which has been damaged by heavy irradiation, responds poorly to radiation therapy. But since we from time to time see such lesions after unsuccessful x-ray treatment, it seems best to call attention again to the fact that this small group of skin cancers should be treated surgically.

Case 5

A white farmer, 63 years of age, was first seen in December, 1939, because of a growth on the side of his neck. He had been burned about the face, neck, and trunk as a child. For many years an

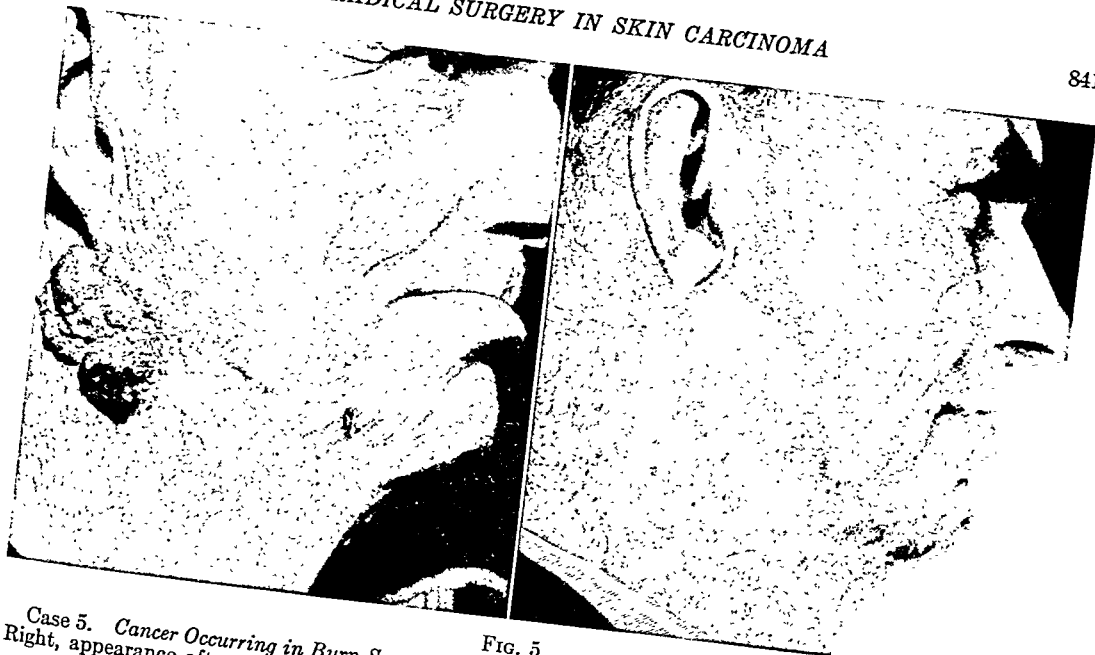


FIG. 5
Case 5. *Cancer Occurring in Burn Scars.*—Left photograph, squamous cell cancer in old burn cicatrix
Right, appearance after radical excision and immediate skin graft. No recurrence to date ($2\frac{1}{2}$ years)



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Case 6. *Skin Cancer Invading Bone.*—Left photograph shows many times recurrent basal cell cancer
which by x-ray had extended into bones of orbit. Right photograph, result after radical surgery and
immediate repair by doubled forehead flap. No recurrence on last follow-up (3 years).

area in the scar just below the ear had been rough and scaly and ten years before an epithelial horn had appeared. This began to increase in size some two months before and had grown rapidly. The tumor was an elevated, firm mass with some ulcerated area; it was about 8 by 8 cm. in size. A biopsy showed squamous cell carcinoma. The growth was widely and deeply excised and the large defect immediately covered with a split thickness skin graft. The area healed promptly. He has been examined at regular intervals and to date, about two and one-half years, there has been no recurrence.

Skin Cancer Invading Bone

There comes a time in the history of cancer occurring in the skin or mucous membrane over bony prominences, when the neoplasm extends into bone. This occurs particularly in squamous cell carcinoma of the alveolar ridge and basal cell carcinoma about the rims of the orbits and over the bony nasal bridge. When bone is invaded by cancer cells they are so protected that they can be killed only by destruction of the bone in which they are lodged. This can be done by irradiation but only by extremely heavy dosage to the point of radiation necrosis. Such a dose affects deep soft tissues and makes the patient miserable for months. Repair following such treatment is difficult because of wide-spread tissue devitalization. We believe the chances of arrest of the growth are greater, the patient less miserable, the course shorter, and the final repair better if carcinoma extending into bone is handled surgically.

Case 6

F. N., a white farmer, age 63, was seen in August, 1937, because of a long-continued growth near the internal canthus of the right eye. Seven years before a few small pearly nodules in this region were treated by x-ray. Three years later an ulceration in the same area was treated with 100 mg. hours of

radium. The lesion recurred promptly and was treated six months later by electrocoagulation. Within six months the growth was again present, and radium was again applied. Two and one-half years after this I saw him. He had a firm, puckered, ulcerated tumor adherent to the inferior orbital rim. X-rays showed bone destruction. In September, 1937, a radical removal of the growth and exenteration of the orbit was done. The defect was closed by a doubled forehead flap. The entire course of treatment entailed five operative steps and was completed in three months. He was followed for three years and then failed to return for follow-up. When last seen there was no recurrence.

Summary

1. Skin cancers occurring in burn and post-radiation scars are best treated initially by radical surgery.

2. Extensively ulcerated skin cancers are more satisfactorily and quickly arrested by surgery than by radiation followed by surgical repair.

3. Postradiation recurrences of skin cancer should be treated surgically rather than by further radiation.

4. Persistent-recurrent skin cancer should be surgically excised.

5. Skin cancers that have invaded bone can be arrested by surgery only.

These groups of skin cancer can be arrested in a high percentage of cases by wide, deep surgical removal and immediate repair. The accepted teaching that cancer defects should be left open for inspection for at least eighteen months causes a long period of disability that is not always necessary. Deep invasive growths whose complete eradication is doubtful, should not be repaired until one is certain that recurrence is not probable. However, large surface areas of growth should not be a deterrent to immediate repair.

COLOR-BLIND FAMILY

A father and two sons who among them exhibit all the three known types of color-blindness were described by Dr. Dean Farnsworth of New York University at a recent meeting of the Optical Society of America in New York.

The father is violet-blind. He confuses violet with yellow, blue with green, and orange with red-purple. One son is red-blind; the other green-blind.

Violet-blindness by itself is extremely rare. Dr. Farnsworth mentioned only two conspicuous previous cases investigated in this country. One was of quite a different type, he said, and the other

was not adequately investigated. However, he believes that violet-blindness is not so rare as generally supposed, that a number of cases have escaped detection because of inadequacy of the color-blindness tests.

Another rare feature of the present case is that the father is completely blind to the violet edge of the rainbow. He does not see violet light at all. He sees yellow light but it appears colorless to him. The red-blindness and the green-blindness of the two sons are not uncommon among males.—*Science News Letter*

DISCREPANCIES IN SEROLOGIC FINDINGS AS SHOWN BY THE RESULTS OF THE WASHINGTON SEROLOGY CONFERENCE

J. F. MAHONEY, M.D., Staten Island, New York

THE recently enacted items of social legislation requiring premarital and prenatal blood testing are serving to bring to the fore the shortcomings of the laboratory methods used in the serum diagnosis of syphilis. It is now rather generally agreed that none of the procedures in use at the present time completely covers the field of clinical syphilis. It is also conceded that any method may yield false positive results in the presence of intercurrent illness and that leprosy and malaria are prone to produce positive reactions. Less well recognized is the fact that a certain amount of disagreement in the findings of any two tests is to be anticipated and that these discrepancies may be looked upon as a shortcoming of the science of serology rather than as a limitation of an individual technic.

A study of the problem presents some practical difficulties. Two approaches are open. The first, and the one usually adopted, consists of the detailed study of groups of patients who display discrepant serologic findings, or for whom the laboratory findings are at variance with the clinical picture. The second method requires the carrying-out of multiple procedures in a large group of serum specimens and the analysis of the results as to the frequency with which conflicting findings are produced and as to the type of patient from whom discrepant findings tend to appear. The latter study requires that the specimen material be identical for the various tests and that the technical methods be carried out in an unimpeachable manner. The data supplied by the Washington Serology Conference fulfill these requirements and will be used, in part, in an effort to illuminate the problem of conflicting test findings.

On three previous occasions—at Copenhagen in 1923 and 1928, and at Montevideo in 1932—groups of serologists, each credited with having contributed a new test or major modification, have been assembled. The purpose of these assemblies was the rapid gathering of precise information in regard to the reliability of each method in the detection of syphilis. The Washington Conference was a further step in this direction and represented an effort to evaluate the

earlier American technics and some of the more recently developed methods. Nineteen serologists participated and reported upon the findings obtained with 28 procedures. A total of 1,002 serum and 234 spinal fluid specimens, (1) from donors with the established diagnosis of syphilis, (2) from presumably nonsyphilitic patients suffering from intercurrent illnesses and/or pathologic conditions, and (3) from normal individuals, were distributed. Upon a scrutiny of the findings of this group are based some of the considerations to be stated in regard to discrepant findings.

All of the distinctive test procedures available at this time are technical adaptations of one of two principles, complement fixation and precipitation or flocculation. All of the tests are considered to be capable of detecting the presence of the same component of blood serum. This component has been designated as reagin, or Wassermann substance, and is supposedly the product of spirochetal action. It has been convenient to look upon reagin as an entity and to consider that the strength of a positive reaction is roughly indicative of the concentration of the reacting substance. If this were entirely true the cause of conflicting findings could be traced to the ability of one test to measure concentrations which escape detection by another. The degree to which a difference in sensitivity may account for conflicting findings may be estimated from the following.

In Chart 1 are arrayed the percentage ratings attained by a group of more widely known American methods in the testing of 376 serums from syphilis patients. The blood specimen withdrawn from each patient was sufficiently large to provide an adequate and entirely comparable sample for each participant. Only patients with a clearly established diagnosis of syphilis were used as donors. Although the actual conduct of each of the methods was in the hands of the originator, or an accredited representative, an appreciable difference is apparent in the ability of the tests to detect reacting substance.

In the complement fixation group of tests there is a difference between 77.4 per cent of positive findings recorded by the most sensitive and 54.2 per cent recorded by the least sensitive procedure. The doubtful range in some of the tests serves partially to close the gap and indicates that some reacting substance was detected but that the degree of the reaction did not warrant a positive report. In the flocculation group the

Read by invitation at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942.

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Percentage Findings of Tests with 376 Serums from Patients with Syphilis

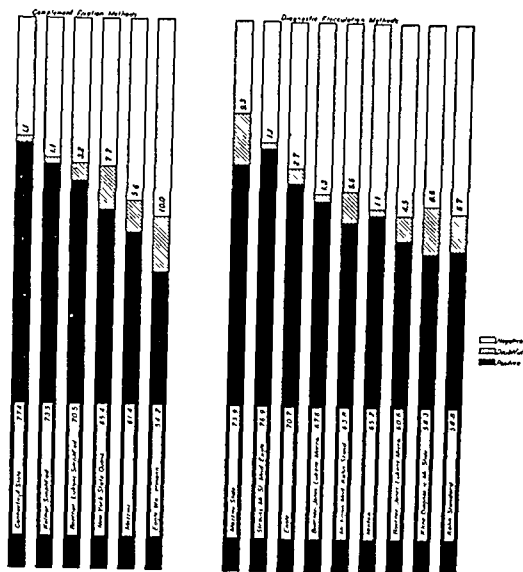


CHART 1

spread appears to be almost equally pronounced. The procedure at the left of the array attained 76.9 per cent positive findings as compared with 58.3 per cent for the method at the right.

The difference in the totals of positive findings displayed by any two procedures serves as an indication of the mathematical possibility of conflicting results being produced. The point may be further emphasized by the statement that 87 per cent of the specimens from syphilis patients were found to be positive or doubtful by at least one diagnostic procedure, whereas the highest percentage attained by any one test was 83.2. The average for fifteen of the tests which were acceptable from the specificity point of view was 71 per cent. Thus it would seem that in a group of specimens from known syphilis patients a discrepancy rate of from 4 to 20 per cent may be expected.

Individual serum reactivity patterns further complicate the picture. When the findings of any two methods are analyzed on the basis of results in comparable specimens, the range of complete disagreement between tests in the complement fixation group varies from 6 to 20 per cent. This means that the same serum may be recorded as positive by one method and negative by another. As an example, the New York State complement fixation and the Kolmer tests recorded approximately the same total number of positive and doubtful findings. However, the New York State method recorded reactions

in 12 serums which were negative to the Kolmer. The reverse was true in 18 serums. The Boerner-Lukens test was positive or doubtful in 12 instances which were negative to the Connecticut State test, while the reverse was true in 28 serums. In comparing two methods which have a distinct difference in sensitivity levels, the disagreement becomes more pronounced and is toward the most sensitive method, but not entirely so. Thus, the Mazzini test records as positive or doubtful 70 serums which were negative to the Kahn, but the Kahn was positive in 4 serums which were negative to the Mazzini.

A still further complicating feature may be illustrated by the following information. As a result of considerable experimentation, it has been found that serum specimens which have been Seitz-filtered and to which an adequate concentration of merthiolate substance has been added, may be maintained in a testable condition for prolonged periods without appreciable loss of reactivity. This knowledge was utilized in the Washington Conference in the following way:

For the purpose of testing the ability of a procedure to reproduce its findings in identical specimen material tested upon different days, a group of specimens was prepared. Pooled positive serum was diluted with negative serum in a series of 9 dilutions ranging from 3 of positive and one of negative to one of positive and 43 of negative. The bulk specimens of each dilution were passed through a Seitz filter and preserved with merthiolate substance. A sample of each dilution was tested by every participant on each of the ten days of the Conference. When the results are tabulated the ability of each procedure to follow the dilution schedule is displayed, as is also the day-to-day variation to be expected in testing samples of identical material.

Chart 2 represents the findings of a group of the more widely used technics. Attention is invited to the performance of the Michigan State Modified Kahn Presumptive procedure, which contributed a completely satisfactory performance in this group by detecting reagin in all specimens in which reacting substance was present. The New York State complement fixation test gave an almost perfect picture in that the transition from positive to negative findings was precise, although at a higher level of reagin concentration than the first-mentioned procedure.

The majority of tests, however, appear to pass through a critical zone which covers two and sometimes three of the present dilutions. In this zone the findings of "positive," "doubtful," or "negative" are indiscriminately recorded for identical specimens tested upon different days. The critical zone may occur at different levels in the dilution schedule for different tests and

It would thus seem that discrepant serology findings are to be expected at the present state of our knowledge. It should be recalled that the findings here presented were produced by workers skilled in each technic and that the results may be looked upon as a fair maximum of that attainable by the methods. In less skilled hands the degree of discrepancy would probably be of a greater order. It is surely regrettable that there has not been developed a method by which the medical man who is called upon to interpret the findings could be guided in determining the type of conflicting picture with which he is dealing. There are, however, several principles which may be found helpful.

The conflicting findings that are directly attributable to faulty technical work present a perplexing dilemma for the medical man. As has been previously intimated, there is no way of compensating for the vagaries and inconsistencies which may result from the improper conduct of tests due to indifference, or lack of knowledge or training. It is, moreover, difficult for the profession to judge the laboratory which is doing good serology. The safe attitude is the patronizing of a laboratory in which recognized procedures are being carried out under careful check at all times. The state health departments, which maintain an approval system for laboratories, contribute a valuable service through the insistence upon high technical and educational standards.

Another general thought to be borne in mind is that a serologic upstroke almost invariably accompanies the invasion of syphilis and that, once the invasion is completed, practically all well-conducted procedures give positive findings. Under effective treatment the test findings are unevenly reduced or reversed. The bulk of discrepant results are found in this category of patient. When a history of previous infection and therapy are obtainable, the import of conflicting serology is minimal, as the continuation of therapy, or the approval for marriage, will be predicated upon conditions and circumstances other than the serologic findings. Discrepant findings may be considered as the rule, rather than the exception, in patients who are responding to treatment or who are in the initial stage of serorec.

The trouble occurs in patients with instances of conflicting serology of previous infection and do not give a history of possibility of a false positive. In those the always be given consideration. In those the is usually that of low-reading positive or negative reactions with some methods and negative should ings with others. As a basic premise it may be stated that this is not the expected picture of an untreated syphilis of any appreciable duration. It is the picture frequently encountered in syphilis which is responding to therapy. Hence, in the absence of history and clinical evidence of syphilis, consideration should always be given to the possibility of the atypical finding being an expression of the influence of a condition other than syphilis. It is only rarely that an arbitrary diagnosis of syphilis and the beginning of treatment are warranted upon the basis of this type of serologic finding.

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It is reassuring to have such a broad evaluation of the comparative results obtained with the different serologic tests—that is, an interpretation within the limitations of our knowledge of serology. Still I must reiterate that the laboratory should not make a diagnosis of syphilis, that the reports of the serologic tests should not be submitted as "positive," "negative," or "doubtful," and that evaluations based on such reports fail to give a true comparison of the methods either from the theoretic or the practical point of view. The statistical comparison of results based on reports of "positive," "negative," and "doubtful," although it has contributed to the general knowledge, has been worn threadbare, and speak, especially since it does not give the data necessary for comparison within the group of so-called discrepant results. "Positive" reactions of a marked reaction, whereas in sensitive tests they really represent a relatively slight amount of disease. In such instances even those reactions that are of specific origin represent such a small degree of activity that their significance is doubtful. The variation in reports of "positive," "doubtful," and "negative" in this borderline group is particularly objectionable. Specific information, in the light of our experience, has only been obtained by the detailed analytic comparison of the degree of reaction obtained in the different tests and in the light of clinical observation in the individual case. The significance of low grades of reaction obviously depends upon whether or not the case is syphilitic, the stage of development of the disease, whether or not the patient is under treatment, and the importance of detailed analytic comparison. The degree of reaction is strikingly emphasized in the modern intensive method of treatment. Under the modern intensive method of treatment we have made of the final titer in cross-reactions. This applies also to the evaluation of the Yaws test. Cross-reactions reported in other diseases—syphilis, yaws, leprosy, and true infections—have been reported in the literature. In the comparative study of sera acted in para/Mrs. Mallan's study of sera from patients with leprosy and tul. degree in the tuberculin test there are true tuberculous reactions, a greater percentage of discor., a greater degree of activity of the disease than in the tuberculin test.

*Am. J. Trop. Med.

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The difficulty of interpreting the significance of the relatively small percentage of atypical reactions that occur in serologic tests is illustrated when the results of a long series of repeated tests are studied. The deviation in the great majority of specimens is only 8 to 10 per cent, which might indicate the technical error, but in a small number the deviation ranges as high as 25 or 50 per cent or higher, a variation in reactivity that is not clearly manifest in the ordinary test but only on quantitative titration. This has been our experience in a series of repeated tests and in tests at short intervals on sera of patients

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As data in regard to these variations in reactivity of the serum under different conditions accumulate, it appears to be the changes in the serum that give rise to the atypical variations in the degree of reactivity rather than the antigen. Now that we have an antigen prepared from balanced quantities of practically pure substances—cardiolipin, lecithin, and cholesterol—it will be possible to obtain final proof of this conclusion.

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STATE INDUSTRIAL HEALTH PROGRAMS

The movement toward more and better preventive industrial medicine has received force and direction from committees on industrial health in the state medical societies. Following the recommendations of the Council on Industrial Health, these agencies were to contain representation from private practice, industrial practice, and the state bureau of industrial hygiene, all to assist in focusing the interest of every element in medicine on the physical welfare of workers. Already significant advances have been made. When the full implications unfold, no other committee in the structure of medical organization in each state is likely to exert more influence on the nature and standards of medical practice.

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The use of x-ray therapy in the treatment of diphtheria carriers has been promoted with marked success by two clinicians from the University of California, Drs. Arthur J. Williams and Thomas Fullenlove.

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The troublesome instances of conflicting serology occur in patients who do not give a history of previous infection and therapy. In those the possibility of a false positive finding should always be given consideration. The serology is usually that of low-reading positive or doubtful reactions with some methods and negative findings with others. As a basic premise it may be stated that this is not the expected picture of an untreated syphilis of any appreciable duration. It is the picture frequently encountered in syphilis which is responding to therapy. Hence, in the absence of history and clinical evidence of syphilis, consideration should always be given to the possibility of the atypical finding being an expression of the influence of a condition other than syphilis. It is only rarely that an arbitrary diagnosis of syphilis and the beginning of treatment are warranted upon the basis of this type of serologic finding.

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INFECTIOUS MONONUCLEOSIS

From the Point of View of the General Practitioner

HENRY B. SOKAL, M.D., Brooklyn

IN THE days of Emil Pfeiffer, it was a simple matter to make a diagnosis of infectious mononucleosis. It was enough to keep in mind the clinical picture of the disease as described by Pfeiffer,¹ with its special emphasis on the enlargement of the cervical lymph nodes, the fever, and the benign character of the disease.

This conception of glandular fever changed when Burns,² and later Sprunt and Evans,³ published their reports stressing the hematologic findings in this disease. The normal response to an acute infection is usually a pronounced leukocytosis, but in Pfeiffer's disease this tendency was reversed. Burns noticed that a high mononucleosis was invariably present in all cases.

Later reports coming from many quarters confirmed these observations. It was generally agreed that the blood picture was a more constant and a more pathognomonic feature for this malady than the varying degree of lymphatic glandular enlargements. Consequently, a new name was suggested for glandular fever—the present term, "infectious mononucleosis."

This term is somewhat confusing; it must therefore be emphasized that the changes occurring in the blood affect chiefly the lymphocytes, and not, as the name might suggest, the large mononuclears, also known as the transitional, or Ehrlich's, cells. This complicated the diagnostic problem. Infectious mononucleosis had to be differentiated from a group of diseases in which a lymphocytic reaction was a frequent occurrence, as in pertussis, rubeola, measles, mumps, and typhoid fever, not to mention lymphatic leukemia and other less frequently occurring diseases, especially since glandular enlargement was no longer regarded as indispensable for the diagnosis.

The observations of Paul and Bunnell⁴ on the reaction of the serum of patients with infectious mononucleosis toward sheep erythrocytes marked the third advance in our knowledge of the disease.

These investigators found that the serum of these patients will agglutinate sheep erythrocytes in a high dilution. Thus, a new postulate was added to the diagnosis of this malady: a positive heterophile antibody reaction to sheep corpuscles. The diagnosis of infectious mononucleosis is based today on three essential factors: (1) the blood findings, (2) the serologic reaction, and (3) the clinical picture.

The Blood Picture

This is the most constant and therefore a most useful diagnostic sign for infectious mononucleosis. It is characterized by a high mononucleosis. These cells may total 95 per cent of the white cell count. In the first day or two of the disease this increase may not be so striking; it may even be preceded by a transient polymorphonuclear leukocytosis. However, within a few days the blood picture is usually well established.

The average practitioner, after reading the descriptions of the delicate tinctural nuances and the minute cytologic details in the structure of the nuclei and the cytoplasm of the lymphocytic cells in infectious mononucleosis, might harbor the impression that only a top-ranking hematologist can diagnose this condition. However, if one keeps in mind the typical small, round-shaped lymphocyte with its very narrow rim of cytoplasm, as seen in the average blood smear, the "atypical" lymphocyte of infectious mononucleosis will instantly attract attention by contrast. A number of cells will appear somewhat larger and in a higher percentage than usual; the ring of cytoplasm around the nucleus is much wider, and the shape of the nucleus more irregular. The tinctural qualities may also show some nuances in that the cell stains a much deeper blue (more basophilic). The nucleus may show great variations in size and shape. Instead of the usual round-shaped form, it may become bean-shaped, lobulated, or indented. It may lie eccentrically, with the mass of cytoplasm at one end of the cell. The latter may show the presence of small empty spaces (vacuoles) or may contain a larger number of azurophilic granula. These cells are spoken of as "atypical," leukocytoid, or Downey's⁵ cells.

The Heterophile Antibody Reaction

The serum of patients with infectious mononucleosis will agglutinate sheep red cells in a high dilution. A titer 1:64 is the minimum measure for a positive test. Some authors⁶ report positive reactions in over 90 per cent, while others⁷ place the percentage at a much lower level.

The reaction appears at the end of the first week. In evaluating the results of the Paul-Bunnell test it would be safer for the present, in view of the conflicting statements, to regard only positive reactions as being of diagnostic value. A negative heterophile antibody reac-

tion would not necessarily exclude the possibility of infectious mononucleosis.

Clinical Picture

The classical type of the disease as described by Pfeiffer, with the great enlargement of the cervical lymph nodes, the fever, the high mononucleosis and a positive heterophile antibody reaction, does not need further elaboration.

There are, however, cases of infectious mononucleosis which clinically have little in common with the type originally described. Infectious mononucleosis is looked upon today as a generalized infectious disease, although the causative agent has not yet been isolated with certainty.

As is the case with many infectious diseases, several types of infectious mononucleosis have been described, depending on the predominant clinical symptoms appearing during the illness. The glandular enlargement may be of such small degree that it is barely distinguishable from the normal, especially in children. Contrary to the statement by Pfeiffer, skin exanthemata are not rare. The rash may resemble that of German measles^{8,9} or any of the acute exanthematic infectious diseases.

Reports have been made of an abdominal type of the disease simulating acute appendicitis¹⁰ and of a cerebral type^{11,12} with a predominance of meningeal symptoms.

Last summer I had an opportunity to observe in a children's camp a mild epidemic of what to all appearances could be regarded as a respiratory type of infectious mononucleosis. The outstanding clinical symptoms were a hacking cough, a subfebrile temperature, a sore throat, and a moderate enlargement of the cervical lymph nodes. The blood counts revealed a lymphocytosis between 55 per cent and 64 per cent, with some atypical cells present. Because of lack of facilities, serologic examinations were not made, except in 2 patients about two months later. In these 2 cases the results were negative. Pertussis could safely be ruled out, for most of the children and the few adults had had whooping cough sometime in the past. The disease lasted about three or four weeks.

Recently an asymptomatic¹³ type of the disease has been reported, in which, except for a high mononucleated cell count, no abnormalities could be found. The heterophile antibody agglutinative reactions were negative in every instance.

From the above remarks one can clearly see how rich and variable the symptomatology of infectious mononucleosis can be. Indeed, sometimes the disease may develop rapidly, with sudden chills, high fever, severe headaches, vomiting, skin rashes, jaundice, and all the common

signs of an acute and severe infection. At other times the symptoms may be so mild that the patient feels only a little "indisposed," and continues with his work. These cases may easily be overlooked if no blood examination is made. The term "abortive" infectious mononucleosis would be appropriate in cases of this kind.

Like the symptoms, the duration of the disease also varies greatly. It may last from a few days to three or four weeks. The prognosis is said to be always favorable. The following case reports illustrate some of the types of infectious mononucleosis which I have seen in my practice during the last two years.

Case Reports

Case 1.—C. R., a 24-year-old woman, was taken suddenly ill with high fever, headaches, a dry cough, and pain in the back and lower extremities. On the third day the patient noticed large, hard masses along both sides of the neck. The temperature was 103 F. and the pulse 120 and regular. The throat was red and the cervical lymph nodes were greatly enlarged along both sides of the neck, some of them the size of small plums. The lungs and heart were normal. The liver was not enlarged, nor the spleen palpable.

A blood count made on the third day showed a hemoglobin of 94 per cent (Sahli), with 11,200 white cells and the following differential count: polynuclears, 27 per cent, including 10 per cent staff cells; small lymphocytes, 27 per cent; large lymphocytes, 29 per cent; "atypical," 12 per cent; mononuclears, 4 per cent; eosinophils, 1 per cent; total lymphocyte count, 68 per cent. The heterophile antibody reaction was positive in a dilution 1:1,024.

The fever continued for over three weeks and came down by lysis.

Case 2.—M. Z., a 44-year-old woman, was a day nursery supervisor, whose chief complaint was of a gain in weight and menopausal symptoms. Physical examination revealed no abnormalities, except for obesity. A routine blood count showed a hemoglobin of 16 Gm., with 4,900,000 red cells and 8,000 white cells, of which 55 per cent were lymphocytes, 43 per cent polynuclears, and 2 per cent eosinophils. The basal metabolism rate was minus 2, the sedimentation rate 19 mm. at the end of one hour, and the Wassermann and heterophile antibody tests were negative.

On further inquiry the patient recalled that about two years previously she had waked up one morning with a slightly sore throat, and on the same day she had noticed the presence of large masses along the right side of the neck. Since she had no fever and had felt well, she did not consult a physician. The swelling gradually disappeared within a week.

Case 3.—J. S. was a 3-year-old girl whose mother is apparently healthy but whose father suffered from asthma up to about four years ago. At the age of 3 months the patient was supposed to have

had an erysipelas infection. Two months later she developed an eczema. About a year ago she suffered her first asthmatic attack. In March, 1942, the child was taken suddenly ill, with high temperature, sore throat, and a croupy cough resembling diphtheria. The next day the family physician was called and told the mother that the child had bronchopneumonia. Following the administration of sulfathiazole her temperature dropped to normal within two days. No blood examination was made at that time, nor was the sputum or throat exudate cultured.

I saw the child in June of that year on account of a severe asthmatic attack. On examination her temperature was 98.8 F. by rectum, the cervical lymph nodes were barely palpable, and nose and throat examinations were entirely negative. Diffuse dry rales could be heard over both lungs. The abdomen was negative, the liver not enlarged, and the spleen was not palpable.

A routine blood count made on that day showed 87 per cent lymphocytes (see Table of Blood Studies). The sedimentation rate was 8 mm. at the end of one hour. The heterophile antibody reaction was negative. The mother of the child, a woman of 22, seemed to be in good health. At the time when the child was sick, she, too, had a slightly sore throat. This, however, did not prevent her from doing her housework.

The blood count now showed a hemoglobin of 14 Gm., with 5,600 white cells, of which 61 per cent were lymphocytes, mostly of the small variety. The sedimentation rate was 13 mm. at the end of one hour; the heterophile antibody reaction was negative. Physical examination was negative.

Case 4.—S. P., a 5-year-old boy, had been under observation for eighteen months. In November, 1939, he was hospitalized for lobar pneumonia, and three months later he was readmitted to the hospital with bronchopneumonia. In May, 1940, he suffered his first asthmatic attack. There followed several more admissions to the hospital for severe asthma, with the last admission in August, 1941, for acute mastoiditis.

In July, 1941, the child was taken ill with what seemed to the family physician to be German measles. His elder sister, a girl of 9, had been sick with the same disease two weeks before. In July, 1941, the child came to my office for a periodic examination. At that time he appeared to be in good health and free from asthma, the last attack having occurred in November, 1940. Physical examination was negative. A blood count made on that occasion showed a lymphocyte count of 73 per cent. His sister, who was sick about the same time, had a lymphocytosis of 69 per cent, but otherwise she was in good health. The last blood counts made on both children a year later still showed a high lymphocyte count.

It is interesting to note that when the boy was admitted to the hospital in August, 1941, with acute mastoiditis, the leukocyte count was 80 per cent. The heterophile antibody reaction made three months later was negative.

Case 5.—N. S., a 13-year-old boy (the author's

son), gave a past history of measles, chicken pox, scarlet fever, pertussis, and acute mastoiditis.

Last summer, after a week-end visit to the camp where I had noticed a mild epidemic of what appeared to be a respiratory type of infectious mononucleosis, he returned home and within seven days suddenly became ill, with a high temperature, a hacking pertussis-like cough, severe headache, and a sore throat. Two days later a skin rash resembling somewhat the rash of German measles appeared. The temperature, 103 F., continued for one week. The cervical lymph nodes were moderately enlarged. The cough was persistent, coming in bouts as in whooping cough, although not of that intensity. After five days the rash disappeared, but the cough persisted for three more weeks.

A blood count made on the third day of the illness showed a hemoglobin of 15 Gm., with 6,500 white cells, of which 27 per cent were of the small type, 23 per cent large lymphocytes, 6 per cent "atypical" cells, 42 per cent polynuclears, including 15 per cent staff cells, and 2 per cent eosinophils. The heterophile antibody reaction was negative.

A week later the author's wife became ill. The only complaints were a hacking, dry cough, a feeling of fatigue, and some pains in the extremities. The temperature was normal, and the physical examination was negative.

The blood count showed 8,250 white cells, with 54 per cent lymphocytes, 40 per cent polynuclears, 2 per cent eosinophils, 1 per cent basophils, and 3 per cent monocytes. The heterophile antibody reaction was negative. The cough persisted for four weeks and could not be relieved by the ordinarily employed drugs.

Case 6.—J. F., a 5-year-old girl, was taken suddenly ill in October, 1941, with a high fever, a sore throat, and swelling of the lymph nodes on both sides of the neck. At the time the condition was diagnosed as acute tonsillitis. The temperature ran an irregular course for two months. Wet dressings of glycerin and alcohol were applied to the swollen glands. In January, 1942, a tonsillectomy was performed. Within two weeks after this operation the child suffered a severe asthmatic attack. The attacks appear now about every two or three weeks, with wheezing and coughing periods between the severe seizures.

A routine blood examination made in December, 1942, showed a hemoglobin of 15 Gm., with 5,400,000 red cells, 16,125 white cells, of which 82 per cent were lymphocytes, mostly of the small variety, with 5 per cent "atypical" cells, 14 per cent polynuclears, and 4 per cent eosinophils.

Physical examination did not reveal any abnormalities except for edema of the nasal mucosa and dry rales over both lungs. The temperature was 99 F., by rectum. The cervical lymph nodes were not enlarged. The heterophile antibody reaction was negative; the sedimentation rate was 13 mm. at the end of one hour.

Comments

It was not my intention to report a few more cases of a disease which seemingly is much more

TABLE OF BLOOD STUDIES

Name	Age	Sex	Date	H.g.b.	R. B. C.	W. B. C.	Polys.	Lymph.	Mon.	Eos.	Bas.	Remarks
J. S.	3	F	6/9/42	14.5 Gm.	5.2 mil.	9,800	7%	87%	1.5%	6%	...	Bronchial asthma
			6/15/42	.....	...	11,750	10.5%	83.5%	1.5%	4%	0.5%	Probable onset of infectious mononucleosis, March, 1942
			6/26/42	.....	...	13,450	14%	73%	3%	10%	...	
			7/15/42	.....	...	16,500	18%	78%	...	4%	...	
			10/15/42	.....	...	14,400	31%	60%	...	9%	...	
C. S.	22	F	6/12/42	15 Gm.	4.5 mil.	5,030	38%	61%	1%	...	...	Mother of J. S.; no symptoms
S. P.	5	M	9/4/40	15 Gm.	4.8 mil.	8,200	46%	43%	3%	8%	...	Bronchial asthma
			7/1/41	15 Gm.	4.5 mil.	9,650	16%	73%	3%	8%	...	Felt well
			8/4/41	.....	...	11,000	80%	20%	...	...	...	Acute mastoiditis
			7/15/42	.....	...	10,700	34%	61%	...	5%	...	Felt well; no symptoms present
			10/15/42	13 Gm.	4.3 mil.	9,125	31%	62%	...	7%	...	Sister of S. P.; felt well
L. P.	9	F	7/1/42	14.5 Gm.	...	7,450	34.5%	65%	...	0.5%	...	Bronchial asthma
J. F.	5	F	12/4/42	15 Gm.	5.4 mil.	16,150	14%	82%	...	4%	...	Infectious acute mononucleosis
C. R.	24	F	10/4/42	15 Gm.	...	11,200	27%	68%	4%	1%	...	Felt well
M. Z.	44	F	7/10/42	16 Gm.	4.9 mil.	8,000	43%	55%	...	2%	...	Infectious acute mononucleosis
N. S.	13	M	9/12/42	15 Gm.	...	6,500	42%	56%	...	2%	...	Infectious acute mononucleosis; mother of N. S.
E. S.	52	F	9/20/42	.....	...	8,250	40%	54%	3%	2%	1%	

common than is suspected or diagnosed. The purpose of this article is to present the problem from the general practitioner's viewpoint, since it is he who usually sees such cases first.

It was only natural that as our knowledge of the disease advanced, the diagnosis should become more refined and more complicated. The question therefore arises: What should our criteria be in the diagnosis of infectious mononucleosis? I am not speaking of the classical type, with the great enlargement of the cervical lymph nodes, the lymphocytic blood picture, and a positive serologic reaction. These cases are too obvious. The same, to a lesser degree, is true of those cases in which the clinical picture and the hematologic findings are present, although the opinion on this point is divided. Some authors insist on a positive serologic reaction for the diagnosis of infectious mononucleosis.

But what about those cases in which the only findings are high lymphocytic blood pictures, with negative serologic reactions and a complete absence of clinical symptoms? Shall we diagnose these cases as "asymptomatic" infectious mononucleosis, or shall we interpret the hematologic findings as evidence of the infection in the past? Personally, I am inclined to take the latter position. Analyzed from this point of view, Cases 1 and 5 would represent the acute stage of the disease; while in Cases 2, 3, 4, and 6, where the only findings were a high lymphocytic count, these findings should be interpreted as evidence that the disease occurred sometime in the past.

In the case of Mrs. M. Z., there seems to be little doubt that the disease had occurred about two years previously. The history of a sudden

swelling of the neck with a persistent lymphocytic blood picture after two years is suggestive.

As for the 5-year-old boy and his sister, it is quite probable that both were sick in May, 1941, at the time when the diagnosis of German measles was made. Kracke⁹ in his textbook, *Diseases of the Blood*, stresses how difficult it is to differentiate between the two conditions.

In the case of the little girl, J. S., and her mother the probable onset could be traced to the spring of that year, when the child was taken suddenly ill with high fever, a croupy cough, and a sore throat. The fact that the mother, who was sick with a sore throat at the same time, still showed a lymphocytosis of 61 per cent three months later would support such an assumption.

In the case of J. F., there seems little doubt that she had contracted the disease about a year previously. The history of a sore throat, glandular enlargement, and a protracted fever for two months seem to leave little doubt that the disease was not diagnosed correctly at that time.

Conclusions

The diagnosis of infectious mononucleosis should be based on at least two components of the diagnostic "triad."

A lymphocytic blood picture alone, in the absence of clinical symptoms, should be interpreted as evidence that the disease occurred in the past rather than as an indication of an active infection.

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ARMY MEDICINE SUCCESSFUL

When the medical history of World War II is written, the year that elapsed following the treacherous attack by the Japanese at Pearl Harbor will be recognized as one in which the Medical Department of the United States Army was expanded tremendously in personnel, organized units, supplies, and responsibilities and in which it met all these demands quietly and efficiently. Now with more than thirty-five thousand medical officers, with hundreds of thousands of medical corps men, with double the number of general and station hospitals and well-nigh triple the bed capacity, it stands ready to meet any new obligations that may be placed upon it. During the year the only serious incident from a medical point of view was the jaundice associated with inoculation against yellow fever. The first week of February, 1943, found atypical pneumonia and meningitis the most prominent of the infectious diseases, but even these were scattering, with a few cases here and there and only a score or slightly more of cases of either in the few camps most seriously affected. From July, 1942, the maximum admissions for venereal disease had reached less than one per thousand, and admissions for both gonorrhea and syphilis had fallen in February, 1943, below the levels of November, 1942.

The remarkable records here cited are the actual evidence of the effectiveness of the organization of the Office of the Surgeon General to meet every contingency. In January, 1941, a Central Epidemic Control Board was established, including such specialists from civilian life as Drs. Francis G. Blake, of Yale; O. H. Perry Pepper, of Pennsylvania; Alphonse R. Dochez, of Columbia; E. W. Goodpasture, of Vanderbilt; Kenneth F. Maxey, of Johns Hopkins; A. J. Warren and Wilbur F. Sawyer, of the International Health Division of the Rockefeller Foundation; Oswald T. Avery, of the Rockefeller Institute; and E. S. Robinson, of the Massachusetts Department of Health. A special commission on influenza is headed by Dr. Thomas Francis, Jr., of Michigan; one on pneumonia by Colin M. McLeod, of New York University; one on hemolytic streptococcus disease by M. H. Dawson, of Columbia; one on measles by Joseph Stokes, Jr., of Pennsylvania; one on meningitis by Perrin Long, of Johns Hopkins; and one on neurotropic virus diseases by John R. Paul, of Yale.

Dr. Stanhope Bayne-Jones, of Yale, heads the commission on epidemiologic survey.

To head services in the Office of the Surgeon General have come Brig. Gen. Hugh Morgan, of Vanderbilt, for medicine, Brig. Gen. Fred Rankin for surgery, Col. Esmond R. Long for tuberculosis . . . along with Brig. Gen. Elliott Cutler, now abroad, and others who serve in organized units.

Under Brig. Gen. C. C. Hillman, professional services have been standardized, utilizing the wealth of talent assembled by the Division of Medical Sciences of the National Research Council. Facilities have been organized by which every person entering the military service is given an x-ray examination of the chest and the roentgenogram is filed permanently with his record.

Under Col. James S. Simmons epidemiologic studies have been made which will lead to adequate protection of our young men regardless of the theater of war into which they may be called. Far too often the public thinks of the army doctor only as one who treats wounds on the battlefield. However, insect control, delousing, sanitary dishwashing, development of safe water supplies, selection of clothing for various climates, occupational hygiene, and venereal disease control also come under the medical department. Then, too, the dental division, meat and dairy inspection, care of animals, nursing, and physical therapy are parts of the complex organization, which has functioned so efficiently under Surg. Gen. James C. Magee in the year of war that has passed.

Today wintertime ailments such as colds, influenza, pneumonia, and measles are well below the five-year average rate of cases in the Army, even though rates for the civil population in some parts of the country are above the five-year average for the country. Venereal disease is substantially less than during World War I, and the syphilis rate is the lowest in the history of our Army. Since January, 1941, excluding battle casualties, the death rate has been the lowest in the history of our Army. During World War I, one patient of each 3 with meningitis died; now only one in 20 dies. Prompt diagnosis, efficient care, and sulfonamides have made the difference. Overseas such conditions as malaria and dysentery are being fought with all that modern medicine has provided for the Army medical armamentarium.—*J.A.M.A.*

CONSERVATIVE MANAGEMENT OF ACUTE OSTEOMYELITIS

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WE BELIEVE that it is generally agreed by most surgeons that the concepts of treatment of acute hematogenous osteomyelitis are undergoing a definite change. The trend is definitely toward conservatism. Up to ten or twenty years ago, treatment was based almost entirely on early incision and drainage. It was thought dangerous not to open the bone immediately after the diagnosis was made. The results obtained by that method of treatment were generally poor, and the mortality was certainly quite high.

Most of us have seen or heard of cases that were not so treated for one reason or another, and have learned that many of these patients did surprisingly well without surgery. Two of the series here reported had neither drainage nor chemotherapy and are progressing satisfactorily. These observations are probably responsible for the changing attitude toward conservatism. This attitude was given further impetus by the discovery and use of chemical agents in infections, including acute osteomyelitis. The introduction of antitoxins also seemed to help in this type of case, so that now, according to Mahorner, "the real status of operation, its relative worth in combatting the disease and comparative value in relation to other measures is at present, to say the least, controversial." We are in perfect agreement with him. It is to clear up this confusion in a small way, if possible, that we are reporting this small series of cases of acute hematogenous osteomyelitis, even though we cannot report end results at this time. These cases were not chosen; they were taken consecutively, as they were admitted to the hospital.

Time will not permit us to go into details of etiology and pathology; these, however, are thoroughly covered in many other articles on the subject. It is generally agreed that acute hematogenous osteomyelitis is only a local manifestation of a general systemic infection, usually starting as a septicemia or a bacteriemia, and the severity of the disease depends upon the virulence of the invading organism and the resistance of the patient to that organism.

Treatment

It is not our purpose in this communication to evaluate the merits of the different types of treatment for acute hematogenous osteomyelitis. We do not wish to go into the merits or demerits of

early operation; we wish simply to report our observations in a series of 27 patients treated conservatively, some with delayed operation and some without operation. Our chief aim has been to treat the patient generally, and the local osteomyelitis as a secondary manifestation of the disease.

On admission to the hospital, general supportive treatment was instituted at once with bed rest, the extremity being placed in traction for immobilization and local rest. Massive hot wet packs were applied to the local lesion every two hours. Blood cultures were taken immediately and were repeated every forty-eight hours until they were negative on two successive cultures. In many cases mild sedation was employed for the relief of pain and anxiety. Infusions of saline and glucose were instituted at once, as the patients were almost all markedly dehydrated and toxic, water balance being very carefully observed and infusions continued for days, if necessary. Blood transfusions were given immediately, although they are deemed unnecessary in the acute stage by some authors. The amount varied from 150 cc. to 350 cc., and was repeated every twenty-four to forty-eight hours during the first two weeks in most of the cases and at intervals after this, as indicated.

Sulfanilamide or sulfapyradine were used in the earlier cases. Sulfathiazole was used exclusively in the last 16 cases, the organism in these latter cases being staphylococcus. The dosages of these drugs were 1 to 1½ grains per pound of body weight in infants, and in children and adults from 80 pounds up, an initial dose of 30 grains followed by 15 grains every four hours being employed. Dosage and continuation of this therapy were governed by the general clinical condition of the patient and by the blood level, which we attempted to maintain at four to seven mg. per cent. If gastric distress appeared, sodium bicarbonate was used in equal dosage with the sulfa drugs. Albuminuria or a sudden rise in an otherwise receding temperature was a signal to discontinue the sulfa drugs. All drugs were given orally. They were discontinued when the temperature remained normal for one week, when blood culture was negative, and when the local lesion was well localized and under control. The hot wet packs were continued until the lesion became well localized.

A diagnostic aspiration with a No. 13 gage needle was done as soon as possible to determine the nature of the infecting organism. Chemo-

therapy was, of course, guided by the organism found. Sulfanilamide was used in streptococcus and sulfathiazole in staphylococcus infections.

When the abscess became localized in the soft tissues, which in the majority of cases occurred within five to ten days after the onset of treatment, a therapeutic aspiration with a No. 13 gauge needle was done and was repeated as often as necessary to keep the abscess completely evacuated. The average number required per patient was 4.6. The control of the abscess with aspiration in these cases was apparently possible by the change in the character of the contents of the abscess cavity from a thick, purulent material to a serosanguineous, almost purely bloody material after the administration of the sulfa drugs for two or three days.

Operation on our cases was limited to simple soft tissue incision and drainage and was done only when the abscess could not be controlled by therapeutic aspiration or when the adjoining joint was seriously threatened by a possible extension of the abscess. In this series, it was deemed necessary to operate only four times and for the above stated reasons. In no case was the bone opened beyond the periosteum.

Survey of Cases

The age in this series varied from seven months to twenty-six years, the average being 9.9 years. Only one patient was an adult of twenty-six years. All others were children from seventeen years of age downward.

There were eighteen males and nine females, and of them, twenty-six were white patients and one was a colored patient.

The duration of symptoms before admission to hospital varied from one day to four months, the average being twenty days in the entire series, but in twenty-one of these 27 cases the average was five days.

Blood cultures were taken in 20 of the 27 cases, of which 11 showed growth, 9 being staphylococcus and 2 streptococcus. Nine showed no growth. Of the 3 patients under the age of two years, 2 were found to have had positive streptococcus blood cultures.

There were 15 cases of the 27 which required needle aspirations. This was done for diagnostic purposes alone in 5 and for diagnostic and therapeutic purposes in 10.

There were 14 positive cultures from aspiration in the 15 cases aspirated, 12 of which were staphylococcus and two streptococcus.

There was involvement of 34 bones. These were distributed as follows:

(A) Femur	19	{ Upper 10 Lower 9	55.8%
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(B) Humerus	6	{ Upper 4 Lower 2	17.6%
(C) Tibia	4	{ Upper 3 Lower 1	11.7%
(D) First Metatarsal		3	8.8%
(E) Radius	1	Lower Shaft	2.9%
(F) Eight Rib		1	2.9%

There were 4 cases which required delayed incision and drainage of the soft tissues, leaving 23 patients, or 85.2 per cent, who had no surgery of any sort. There was one death in this series, bringing the total mortality rate to 3.7 per cent.

In those cases requiring delayed soft tissue incision and drainage—four in number, or 14.8 per cent of the series—1 was a case of involvement of the upper tibia which was operated upon eleven days after the onset of the disease because of threatened knee joint involvement. It was treated by the Orr method, and after draining for twelve months its function was completely restored.

The second case was one of involvement of the lower femur which was operated upon fifty-nine days after the onset of the disease, also because of threatened involvement of the knee. It was treated with the Orr method and drained for ten months. Sequestrectomy was done at the end of this time, and the wound was closed tightly after the implantation of 10 Gm. of sulfathiazole. This has remained closed after six weeks' plaster immobilization.

The third case was one of an overwhelming septicemia. The patient was moribund on admission, but lived for twenty-one days with a constantly positive blood culture and had, in the terminal stages, a culture of 900 colonies of staphylococcus from an aspiration of a pericardial effusion. This patient also had effusions in both knees and the pleura.

The fourth case was one of metatarsal involvement of the foot with a large abscess which could not be controlled with aspirations. An incision and drainage of the soft tissues were done on the tenth day of the disease. Drainage followed for seven months.

Of the 23 cases that did not require surgery, 5 developed sinuses. Three of these 5 were discharged from the hospital as cured without sinus formation but returned, an average of nine months after the original infection, with exacerbation in the same sites, a spontaneous onset of drainage, and sequestrum formation. It was necessary to do a sequestrectomy on one. Another closed spontaneously after the extrusion of a sequestrum, having drained for sixty days. The remaining 3 are still draining, reaching an average of fourteen months each. All of them

have extruded from 2 to 4 small sequestra at intervals and now appear to be healing.

Including the four operated cases which had surgical drainage of the soft tissues and the five which had spontaneous drainage, there was a total of nine cases, or 33.3 per cent, which had drainage, in contrast to eighteen or 66.6 per cent which had no sinuses, scars, operations, deformity, or disability of any nature.

In 4 cases the duration of the drainage following soft tissue incision and drainage was twelve months for the longest case and ten days for the shortest case, the average duration being 9.9 months. The duration of drainage following spontaneous eruption was thirty-two months for the longest and four months for the shortest time, the average being twelve months.

In the twenty-seven cases that were not operated upon, 4 had exacerbations. Three of these had two exacerbations at original site of infection; one had three exacerbations. All 4 developed sequestra. Of these cases, three had been originally discharged as cured but returned with exacerbations and sequestrum formation in addition to drainage. The average time of the exacerbation was 4.7 months from the original onset of the disease.

The total number of cases which developed sequestra was eight out of the twenty-seven or 29.6 per cent. Of this number, six had draining sinuses, the seventh showing sequestra without drainage or surgical removal and went on to spontaneous absorption, the eighth has now had six months' duration with pathologic fractures and continuation of the infection although there has been no drainage.

Of the 4 cases requiring simple soft tissue incision and drainage, only 1 later required a sequestrectomy. This was done eleven months after the original onset and has not drained since the last operative procedure.

Of the 23 cases not operated upon originally, only one case came to sequestrectomy. The patient was operated upon twenty-three months after the original onset and has drained for eight months since operation.

Metastases were present in 4 cases of the 27. Three of these were present before admission to the hospital and only 1 showed metastasis while under treatment. Of the four cases operated upon, none showed metastasis.

Four cases of the twenty-seven showed functional impairment of adjacent joints: (1) a bilateral fracture dislocation of both femora at the hip with almost complete loss of function, (2) multiple pathologic fractures in an upper femur at the hip with apparent loss of all motion at this time, (3) an estimated loss of from 10 to 20 per cent of the motion of the hip in a case of upper

femoral involvement, and (4) an estimated loss of 20 per cent of the motion of the shoulder in a case of upper humeral involvement to date.

One other case of upper tibial involvement developed a tibia valga, probably because of the fact that the disease involved the epiphysis, with a resultant epiphyseal stimulation of growth on one side.

Patients were not permitted to bear weight, where a weight-bearing bone was involved, until all evidence of activity of the disease ceased and healing was well advanced. This was accomplished by using crutches and by keeping the affected limb up in a shoulder suspension belt attached at the heel of the shoe, maintaining the knee flexed.

The average hospital stay was 6.1 months, the minimum being five weeks and the maximum thirty-two months. At this point, it might be in order to point out that nearly all these patients were free patients in a city hospital, having poor home conditions. Therefore, they were kept in the hospital to insure proper convalescent care.

All these patients have been followed closely and were all seen in April, 1942, with the exception of one case. The longest follow-up has been since July, 1939, and the most recent since December, 1941.

In conclusion, we wish to stress that the conservative management of osteomyelitis, as above outlined, with bed rest, local rest of the part, correction of dehydration, multiple blood transfusions, sulfa drug therapy as indicated, and needle aspirations of the localized abscess is apparently adequate, except where a joint is threatened or aspirations do not control the abscess. In those cases, soft tissue incision and drainage only is indicated.

1. Early operation is not necessary, and probably is contraindicated.

2. Treatment should be directed toward the control of the systemic infection.

3. Chemotherapy is of definite value in treatment.

4. Cases with sequestra and sinus should be operated upon and sequestra removed.

5. Not sufficient time has elapsed to permit prognostication as to development of metastases in comparison with cases treated with early surgery.

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WALTER I. LILLIE, M.D., Philadelphia

THE clinical syndrome called herpes zoster is the result of an inflammation affecting the ganglia, posterior roots, spinal nerves, sensory extramedullary ganglia, or the cranial nerves. It is characterized by groups of herpetic vesicles on the skin along the distribution of the nerve trunks and is accompanied by neuralgic pain. On the basis of their cause, about 50 per cent of the cases are termed essential herpes zoster and are considered to be of virus origin; the remaining 50 per cent are termed symptomatic herpes zoster, and of this latter group syphilis is considered to be the cause in about two-thirds of the cases. The remainder are due to infections, poisons, or irritations of the nerve ganglia.

The treatment of this disease varies greatly throughout the country, as do the clinical results. The usual treatment has consisted chiefly of applying ointments to the local skin lesions, pituitrin injections, roentgen ray, and the use of foreign proteins. The course of the disease usually persists from four weeks to four months, and the most annoying symptom to the patient is severe neuralgic pain.

Herpes zoster ophthalmicus belongs to the herpes group in which the fifth cranial nerve is involved. During the past four years a group of these cases with and without corneal involvement has been treated by vaccination with smallpox vaccine at intervals of from two to ten days. Regardless of the severity and duration of the disease, uniformly excellent results have been obtained.

The following selected cases from this group are reported to show how efficient the treatment has been, even though other forms of treatment previously instituted had not accomplished the desired result. All of 11 cases have been successfully treated with smallpox vaccine.

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Case 1.—A woman, aged 35, was examined in 1939 because of severe pain over the left eye and continued skin eruptions over the upper division of the left fifth cranial nerve for three months. When the left eye became involved one week after the occurrence of the skin eruption, she was treated with pituitrin and roentgen rays, with some

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From the Department of Ophthalmology, Temple University School of Medicine, Philadelphia.

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He was given the usual treatment for herpes zoster ophthalmicus, consisting of ointments, pituitrin injections, roentgen ray, and local ocular treatment, without evidence of improvement. One week prior to my examination, the left eye became affected with marked itching, lacrimation, and swelling of the upper lid.

My examination of the skin over the distribution of the first division of the left fifth cranial nerve revealed numerous vesicles of various sizes and some secondarily infected. Many areas were covered with small dark-colored crusts, and the skin, where visible, was dusty-red, markedly indurated, and very tender to palpation. Examination of the left upper lid revealed a vesicle formation, while that of the lower lid was normal. There was a mild, subacute conjunctivitis with marked lacrimation, photophobia, and blepharospasm. The cornea was not involved. The right eye revealed a surgical iridectomy and also aphakia, this eye having been operated upon eight years previously. The general examination was entirely negative except for herpes zoster ophthalmicus.

A regimen of smallpox vaccinations was instituted, with vaccinations every fourth day for a series of four. On his fourth hospital day the patient was definitely improved, there being considerable lessening of the pain, lacrimation, and photophobia, although the herpetic lesions had not changed in appearance. On the sixth day, the lesions were much dryer and the subjective symptoms had practically disappeared. On the tenth day the patient did not look like the same man who had entered the hospital; he was symptom-free, most of the scales had disappeared, and healthy granulations were noted. There was no systemic reaction following any of the four vaccinations, although a local reaction and pustulation was produced by each vaccination.

Case 3.—A man, aged 56, was seen one week after an acute herpetic eruption over the right forehead had been noted by his family physician. A few days before this, the patient had had a severe pain over the right side of the head. The early diagnosis was erysipelas.

At the time of my examination he showed a typical herpes zoster ophthalmicus involving the right upper division of the fifth cranial nerve. The two lids were swollen and indurated, but the cornea was not involved. I advised smallpox vaccinations every seventh day for a series of four or five vaccinations. Inasmuch as this patient had not previously had any treatment for the herpes zoster, I was very anxious that the smallpox vaccinations be instituted immediately. After his first two smallpox vaccinations, from which he had little or no systemic reaction and only a small local reaction, the herpetic lesions of the forehead began to involute, the swelling of the lids decreased, and all subjective symptoms of the eye were minimized. After a series of five smallpox vaccinations, the skin lesions were entirely healed. A slight edema of the upper lid remained, but it subsequently disappeared. This was accomplished in twenty-eight days without any supportive treatment.

In a recent report by Davis,* excellent clinical results had been obtained in herpes simplex with smallpox vaccinations. The first case he reports is one that I had seen in 1937, at which time the patient had a definite herpetiform lesion of the cornea associated with a diagnosis, made by his dermatologist, of facial eczema. The question of allergy arose, and tests for this revealed a mild allergic reaction to certain foods. Over a period of two or three months the ocular condition improved under this regimen, but the patient continued to have episodes of dermatitis, which made him apprehensive because of the untoward ocular effects which usually followed the dermatitis. At the time of Dr. Davis' first examination, the dermatitis was that of a herpes simplex, and there was no ocular involvement. Smallpox vaccinations were instituted, with excellent results.

Although it is too early to report similar cases, I am sure that herpetiform keratitis responds as well to smallpox vaccine therapy as it does to the usual accepted therapy—or better. Although this form of treatment is not suggested as a panacea for all herpetiform ocular lesions, I believe that a virus origin must be more commonly considered, and early treatment should be instituted.

Case 1 is extremely interesting to me, inasmuch as the patient had a severe local reaction to each smallpox vaccination, and the ocular improvement was rapid even though the condition had persisted for more than three months before this vaccine treatment was instituted. The meningo-encephalitis which occurred nine months later might be of virus origin, but I feel that the infection of the skin on the nose was the more probable cause of this condition. This episode responded rapidly and successfully to intravenous typhoid therapy.

Case 2 had previously had the usual accepted treatment for herpes zoster ophthalmicus without improvement. When the smallpox vaccination treatment was instituted, definite clinical improvement, both objectively and subjectively, was noted within four or five days after the first vaccination.

Case 3 had had no previous treatment. There-sponse to the vaccine therapy was very rapid, and the clinical duration of the disease was very short in comparison with that of the other two cases. This case, I think, demonstrates the efficacy of the vaccine therapy.

Conclusions

1. Smallpox vaccination instituted early in herpes zoster ophthalmicus is efficacious in

* Davis, Park Lee, M.D.: J.A.M.A. 114: 2093 (May 25) 1940.

relieving both the subjective and objective phases of the disease.

2. The improvement has occurred, regardless of the duration of the disease and the type of the previously instituted treatment.

3. The earlier the smallpox vaccine was used, the quicker signs and symptoms were relieved.

4. Vaccine therapy could be used in all forms of herpetic lesions involving the eye and its neighborhood, not as a panacea, but perhaps for a better clinical classification of herpetic keratitis.

5. Smallpox vaccine is used because of the simplicity of use and the ease of procurement.

SULFATHIAZOLE MAY BE GONORRHEA PREVENTIVE

From results obtained in an experimental group of soldiers, sulfathiazole administered by mouth appears to be an effective preventive against gonorrhea and chancroid, Capt. James A. Loveless and Col. William Denton, Medical Corps, Army of the United States, declare in the J.A.M.A. in a preliminary report of their investigation. . . .

The test group in the study consisted of a company of approximately 1,400 Negroes and the control group of approximately 4,000 Negro troops from the same post. In summarizing their report the authors say that "A company of approximately 1,400 Negro troops was given sulfathiazole prophylaxis of 2 Gm. before leaving the fort on pass. Those taking station prophylaxis received no further drug. All others received 4 additional Gm., 2 on returning to the fort and 2 the next morning.

"In this company there has occurred a phenomenal disappearance of gonorrhea and chancroid. Excluding the 'failures' not under the influence of the drug at the time of exposure, the gonorrhea rate dropped to a level of 8 per thousand yearly as compared with 171 per thousand in the control group, and the chancroid rate dropped to 6 as compared with 52."

Commenting on their study the authors say:

"It is recognized that this presentation is preliminary in nature. However, it is believed that sufficient evidence is presented to prove that sulfathiazole prophylaxis will prevent gonorrhea and chancroid. It is our opinion that, under certain conditions and in a final form yet to be developed, prophylactic sulfathiazole administration would produce a remarkable decline in gonorrhea and chancroid in the Army. It is admitted that certain dangers are involved in administering this drug, particularly on a large scale, and that the answer to certain questions has not yet been determined. In view of the magnitude of the venereal disease problem, we believe that the risks are justified."

The authors point out that the cost of this prophylaxis has been about 10 cents per soldier monthly. In a footnote they add that since the preparation of their report 20 soldiers in the test group were subsequently admitted to the Station Hospital for various illnesses. All of them had previously received sulfathiazole as a prophylaxis. All of this group received sulfathiazole as a part of the treatment for the illness for which they were admitted to the hospital and in the entire group the treatment response to the drug was satisfactory and there were no reactions.—J.A.M.A.

TRAINING FOR FOOD CONTROL

. . . . To provide for mutual aid in maintaining and controlling the quality of food supplies during and after the war, the food and drug officials of the New England States, New York, and New Jersey have organized an Emergency Council of Food and Drug Officials of the Northeastern States. This Council is a voluntary organization but each participating state has agreed to make available for emergency service anywhere in the northeastern states inspectors, chemists, and laboratory facilities. . . .

To develop the details of this mutual-aid plan and also to provide an opportunity for a general discussion of the procedures that should be followed in the control and distribution of food supplies during emergencies, a three-day training conference for food and drug officials was held in Albany on December 8, 9, and 10. . . . Particular emphasis was placed on the action to be taken in case of enemy attack, especially if accompanied by the use of chemical warfare agents. The program

considered the properties and tactical uses of chemical warfare agents, the protection of foods from contamination, the salvage of damaged food, and methods for cleansing areas and food supplies contaminated by chemical agents or "poisonous gases." It also stressed the existing organization of the state and local communities for civilian defense and the functions of the food and drug control officials in relation to these existing organizations.

As a corollary to this conference, the Emergency Council requested that the Office of War Training of the New York State War Council organize and direct a laboratory training institute for chemists concerned with the control of food products. The sessions were held in January in the laboratories of the Albany College of Pharmacy. . . . The curriculum consisted of lectures on the chemistry and physiologic properties of chemical warfare agents, first-aid treatment for casualties, and the function of the food chemist in the organization for civil defense.—*Health News*

Therapeutics

CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the June 1 issue and will concern "The Modern Treatment of Cirrhosis of the Liver and Hepatic Insufficiency."

The Status of Therapy with Anticoagulants

DR. DAVID P. BARR: The subject of our conference this morning, the use of anticoagulants, is one with which most of us as yet have had little experience. Unfortunately Dr. Charles H. Wheeler, who was to have opened the discussion, is unable to be here, but he has written some statements which will be read by Dr. McDermott.

DR. WALSH McDERMOTT: Dr. Wheeler has given me a manuscript, and accordingly I shall read you the remarks which he had hoped to deliver in person.

Thrombus formation and the embolic phenomena which so often follow it are frequent causes of disability and death. Some of the important instances of thrombus formation with which we must deal clinically are as follows:

- Primary thrombophlebitis
- Postoperative thrombophlebitis
- Cerebral sinus thrombosis
- Thrombosis of the central retinal vein
- Mesenteric thrombosis
- Mural thrombosis following myocardial infarction
- Subacute bacterial endocarditis
- Thrombo-angiitis obliterans and other types of occlusive peripheral arterial disease

Similarly there are a number of surgical procedures on blood vessels in which success is often endangered because of the formation of a thrombus at the site of incision of the vessel. As examples of these we might list the following:

- Arterial embolectomies
- Arterial suture following trauma
- Arterial anastomosis
- Venous grafts
- Repair of arteriovenous fistula

Theoretically, any agent which could be given to patients safely, and which would prevent clotting of blood in vivo, might have great value in the therapy of conditions such as those given. At the present time we have available two such agents which have been subjected to extensive clinical trial and which appear to be promising

in the field of anticoagulant therapy. These two agents are heparin and dicoumarin.

Heparin is a derivative of glycuronic acid containing calcium and sulfur in its molecule and having a molecular weight of 650. It was isolated in crude form from dog liver in 1916 by McLean, working in Howell's laboratory, and prepared in pure crystalline form as a barium salt in 1933 by workers in both Toronto and Copenhagen. It is apparently a normal constituent of the circulating blood and of many tissues of the body, particularly liver, lung, and muscle, and probably performs a physiological function as an anticoagulant.

When heparin is added to blood in vitro, or injected into the mammalian body, the coagulation time of the blood is prolonged in proportion to the amount of heparin introduced. The mechanism by which heparin prevents the clotting of blood is still imperfectly understood, but seems to depend on the fact that it prevents the conversion of prothrombin to thrombin and inhibits platelet agglutination. When administered orally, heparin has no effect. When given subcutaneously, it is much less effective and more irregular in action than when given intravenously. Accordingly, the intravenous route is employed universally in clinical practice. Following its introduction into the circulation, heparin is rapidly destroyed or inactivated in the body and only traces are detectable in the urine. The effect of heparin on the clotting time is apparent immediately, and disappears from one to three hours after cessation of treatment, even when this has been continued over a period of many days.

Because of the transient effect of single doses, heparin is usually given by means of a continuous intravenous drip when a constant prolongation of the clotting time is desired. It may be given in saline or in 5 per cent glucose solution. The administration of the drug by continuous intravenous drip does not require the introduction of a huge volume of fluid into the circulation, for it is quite possible to maintain the drip

with a total volume of not more than 1,000 cc. in twenty-four hours. By this method it is possible to maintain the clotting time of the blood at a fairly constant level.

It is not possible to state the dosage of heparin necessary to induce a given degree of prolongation of the clotting time, for the effect varies considerably in different persons. In general, however, a dose of about 20 mg. per hour by continuous intravenous drip prolongs the clotting time of the average adult to about twenty minutes. The only safe and effective method of gaging the dosage is to determine the clotting time of the blood at intervals of from three to four hours during the course of treatment and to adjust the dosage accordingly.

Heparin has now received extensive clinical trial and has been given to thousands of patients. Murray and Best, in Toronto, have used it in over 700 patients and Crafoord and Jorpes, of Copenhagen, in over 600. Most workers agree that heparin has definite value in the treatment of conditions such as those just listed. For example, Murray and Best report that they have administered heparin postoperatively to 400 patients and that not one of these has died as the result of postoperative embolism or has even developed postoperative thrombophlebitis, whereas before the routine use of heparin 10 per cent of the postoperative deaths had been due to embolic phenomena.

Finally, a word must be said about the toxicity of heparin. Since the advent of the purified crystalline preparation, no toxic effects have been encountered, except bleeding consequent to undue prolongation of the clotting time. It is noteworthy that the incidence of hemorrhage, which different workers have reported following the use of heparin, varies directly with the degree of prolongation of the clotting time which was induced. Some, such as Murray and Best, who have insisted that the clotting time should not be allowed to exceed twenty minutes, have observed a virtual absence of untoward bleeding in their patients. On the other hand, as many as 30 per cent of patients have been observed to suffer serious and often fatal hemorrhages, particularly in the brain, in series in which the clotting time was allowed to rise to an hour or more. The incidence of serious bleeding has been particularly high in patients treated with sulfonamide and heparin for subacute bacterial endocarditis, for in such patients the clotting time has usually been prolonged to an extreme degree deliberately.

Heparin is expensive, and its administration by the method of continuous intravenous drip is awkward. Consequently, workers in the field of anticoagulant therapy have long wished

for some substance which would induce effects similar to those of heparin when given by mouth, and which would be inexpensive. The new anticoagulant dicoumarin fulfills these criteria.

Dicoumarin is a complex organic compound containing the benzene ring. The anticoagulant properties of this compound were discovered by Link and his coworkers in 1940. Starting with the long-known fact that cattle that eat spoiled sweet-clover hay develop a hemorrhagic diathesis, they succeeded in isolating dicoumarin from spoiled sweet-clover and in showing that it was the offending substance in the fodder. A little later they synthesized it by an inexpensive method.

When dicoumarin is fed to animals, including man, the prothrombin and clotting times are prolonged. The same effects may be induced by injecting the disodium salt of dicoumarin intravenously. No effect on the clotting of blood is produced by dicoumarin *in vitro*. Large doses in animals produce extensive bleeding. The mechanism of action by which these effects occur is still unknown. It possibly consists of an inactivation of vitamin K or an inhibition of prothrombin formation by the liver.

The therapeutic effects of dicoumarin differ somewhat from those of heparin. The effect on coagulation time is variable, but that on prothrombin time is quite regular. Accordingly, this must be used as the gage of effect. The effect on prothrombin and clotting times does not come until from one to three days after the start of treatment. The effect may persist for many days after the withdrawal of treatment. As in the case of heparin, the amounts necessary to induce a given effect vary considerably with different individuals so that the dosage must be guided by daily determinations of the prothrombin time.

It appears that some patients are resistant to the effects of the drug when it is given by mouth, presumably because of failure in absorption, while others are peculiarly susceptible to its effects. It is possible that exaggerated responses are more likely to occur in the presence of impaired liver and impaired renal function, following starvation, and in vitamin K deficiency.

The aim of therapy should be the maintenance of the prothrombin time at a level varying between thirty-five and sixty seconds, as compared with the normal of about twenty seconds. To attain this, an initial dose of 200 to 300 mg. followed by a daily dose of 100 to 200 mg. is usually given orally. Such dosage has been continued for as long as eighteen days. However, as intimated previously, such a dose produces

very little effect in some patients and produces serious bleeding in others.

Information is available on about 1,000 patients who have been treated with dicoumarin by a number of different workers. These data indicate that hemorrhagic manifestations are the only troublesome toxic effects. However, hemorrhages of varying severity occurred in as many as 40 per cent of the patients treated in some of the series, with a fatality rate of 1 per cent in one series. The occurrence of hemorrhages could not be correlated with the increases in prothrombin and clotting times, for many patients bled when the values were lower than those in many of the patients who had no bleeding, and conversely, many of the patients with unusually high values had no bleeding.

It appears, after reviewing these data, that dicoumarin should still be regarded as being in the experimental stage.

DR. BARR: Dr. Duryee, of the New York Post-Graduate Medical School, was good enough to come this morning to tell us of some experiences that he, Dr. Wright, and others have had in the use of these substances in the treatment of various conditions, particularly peripheral vascular disease.

DR. A. WILBUR DURYEE: I apologize for presenting some of this information secondhand. I will have to do as Dr. McDermott did for Dr. Wheeler because all of the detailed work was carried on by Dr. Wright and Dr. Prandoni. Both of these men are now continuing the work in their present locations in the Army, one at the Walter Reed Hospital and one in Hot Springs, Arkansas. We are likewise proceeding with it at the Post-Graduate Hospital. It has been only within the last three months that I have had intimate contact with the investigative work, although I was able to follow, over the last two or three years, a number of patients, particularly in the field of peripheral vascular disease, who were treated with anticoagulants.

Inasmuch as Dr. Wheeler outlined the research background, I think we might discuss some practical applications of our present information.

Anticoagulant therapy was used long before heparin was discovered by Best and Murray. For many years leeches have been applied to patients suffering from phlebitis. The leeches were placed directly over the veins, where they secreted hirudin, an anticoagulant substance. Various workers have tried to purify the crude material on a commercial scale and thus eliminate the use of the leech itself. However, the expense involved was great. Its strength varied tremendously, and it never has worked well as a therapeutic agent.

Although the application of leeches was not a

pleasant form of treatment, the results were gratifying in some cases. Edwards in Boston reported a series of patients treated with leeches with good results. We treated about 20 cases of phlebitis by the direct application of leeches, and were convinced of their value. The average patient, however, does not like a leech crawling over him, and this form of therapy was not used further because of this factor.

Since heparin came into use we have used it in medical and surgical vascular problems. Dr. Pratt has done considerable vascular surgery at Post-Graduate Hospital. He has performed 18 embolectomies in which the vessels in one or both legs were occluded, several of them with the thrombosis at the bifurcation of the aorta, or saddle, type. In many of these, heparin was used during the operation. In the majority of these cases, no massive gangrene followed and no major amputation was necessary, although many of our embolectomies previously had come to major surgery. There is no question of its value.

There are, however, a few points concerning its use that I might point out. Formerly, we waited for an hour or two postoperatively before heparin injection was started. We soon realized, from the work of Best and others and from our own experience, that after such a delay it was frequently too late to obtain the benefit of heparin. The thrombus had usually reformed in the vessel by that time. Therefore, at present, heparin injection is begun on the operating table and frequently even earlier. In emergency it is given in the arm vein in the concentrated form in a dose of at least 40 to 60 mg. The average maintenance dose is 20 to 30 mg. per hour. Heparin may also be injected locally at the site of the operation and into the lumen of the artery. There is always some leakage at the suture area but it is seldom a major problem. Postoperatively heparin is continued for from five to eight days in order to prevent clotting in the injured vessel.

The medical cases in which we have used heparin are divided into two main groups: those with venous and those with arterial disease.

In patients with venous disease we have used it chiefly in thrombophlebitis and especially in migratory thrombophlebitis which presents such a difficult therapeutic problem.

Among the arterial disease problems in which we have used heparin are acute arterial thromboses starting in the periphery and rapidly working centrally, such as those seen occasionally in Buerger's disease and in arteriosclerosis.

I should like now to emphasize some of the points which Dr. Wheeler has already discussed and perhaps to bring out a few others.

Prothrombin is acted upon by thrombokinase and by calcium ions to form thrombin. If calcium ions are absent, thrombokinase acts very slowly—i.e., in the formation of thrombin. If heparin is absent or is in low concentration, coagulation occurs, but if heparin and the neutral salts are present the thrombin is neutralized and the blood remains fluid. There may be other factors present in the blood that will influence coagulation, such as antithrombin agents. The addition of thrombokinase in suitable amounts annuls the action of heparin. Therefore, it is the balance between the concentrations of heparin and thrombokinase that decides whether the blood coagulates or remains fluid.

There are several preparations of heparin that are available on the market today. The ones we are using are those of the Lederle, the Roche, and the Connaught Laboratories. Most of them are distributed in 10-cc. vials with 10 mg. per cc., and each cc. equal to the 1,000 Toronto units as defined by Best and Murray.

With continuous infusion, the clotting time rises from normal levels to twenty or thirty minutes and remains fairly constant. With injections every four hours, the clotting time frequently exceeds an hour. We believe that clotting times of over thirty or forty minutes are extremely dangerous, and, moreover, between the injections the clotting time may return to normal.

I should like to mention that the type of needle that we use for heparin infusion was described by Olovson. It may be strapped on the arm. With it in place patients are able to move around without much danger of dislocating the needle. I had a patient in the Manhattan Eye and Ear Hospital who had a migratory phlebitis whose repeated emboli became so serious that for two weeks he had an intravenous needle in place continuously, for only while the heparin was running was he free of new lesions and emboli. We were finally able to discontinue heparin, and he is now attempting to enlist in the Army. I am afraid he did not tell the Army physicians this story.

If we are to treat our patients intelligently, we ought to have certain clinical and laboratory data, except in emergencies, before we start therapy. The blood typing is often important because the only way we are able to stop the effects of dicoumarin and heparin is by transfusion with fresh blood. Banked blood loses the thrombokinase, and if it has stood three or four days the thrombokinase is so reduced in amount that it is of very little value in opposing the heparin effect.

There is also considerable evidence that in

advanced renal disease both dicoumarin and heparin are contraindicated. There are many reasons for this. Bleeding into the kidney and hematuria are frequent complications in patients treated with anticoagulants. If renal damage exists and renal hemorrhage is added, the outcome may be serious. Therefore the Mosenthal, the urea clearance, or other kidney function tests are indicated. Capillary fragility should be tested prior to therapy and variations in prothrombin time should be constantly watched during treatment.

Hemorrhage with anticoagulants appears to have very little relationship to capillary fragility in most cases. The cause of bleeding from apparently normal vessels in patients receiving anticoagulants is not known. Histologic study of these vessels shows very little alteration from normal. However, in a cut or injured vessel the continued bleeding is easily explained.

The bromsulphalein test for liver function is important, especially when dicoumarin is used. We are familiar with the relation between vitamin K and prothrombin. If vitamin K is deficient and there is associated liver damage, the use of dicoumarin is contraindicated. The blood cholesterol and cholesterol esters are further tests of liver function. The frequent determination of the blood coagulation time throughout the course of therapy has already been stressed.

We do not know yet whether achlorhydria has an effect on the absorption of dicoumarin, but apparently the drug is not so quickly absorbed when gastric acidity is low or absent.

The erythrocytic sedimentation rate is important because a sudden rise may indicate hemorrhage. Practically all the cases treated with dicoumarin that showed hemorrhage had a marked increase in sedimentation rate.

I might mention a few cases to illustrate the effects of dicoumarin. One patient received 300 mg. doses orally every other day. There was a marked increase in the coagulation and prothrombin times. After the dicoumarin was stopped on the sixth day it took eighteen or more days for the clotting time to return to normal. In another case the drug was given every day. The coagulation time rose to sixty minutes, which is dangerously high. The prothrombin time rose to 100 seconds. The patient was given 500 cc. of whole blood and 8 mg. of vitamin K, and later an additional 20 mg. of vitamin K, to neutralize the effect of the drug. Data taken from a chart of Link describe the effect of a single 150 mg. dose of dicoumarin. In 8 days the clotting time returned to normal. With graded doses of dicoumarin (37, 75, and 150 mg.), the clotting and prothrombin times increased in direct proportion to the size of the dose. It

takes from one to two days before the full effect of the drug develops.

The following toxic effects of dicoumarin were noted in a series of 17 patients. Nine of them, or about 50 per cent, had toxic symptoms. Three had purpura, 3 had sublingual ecchymosis, and 3 had conjunctival hemorrhages.

One must be careful to apply pressure for a long period, one hour or more, over the venous puncture points. Slow but massive bleeding may occur from such areas.

Epistaxis and hematuria are frequent complications with dicoumarin therapy. Hematuria is a common occurrence in the course of subacute bacterial endocarditis. It is frequently puzzling to know if the bleeding is due to emboli or to the drug itself. Lumbar pain may be due to bleeding into the lumbar muscles. The temperature becomes elevated, as is often noted in any internal hemorrhage. Vertigo and nausea may indicate cerebral bleeding. This is a complication to fear, but in our series we have had no cerebral accidents. No neutropenia from the drug was noted in any of the cases. One patient went into shock but recovered with the usual shock treatment.

DR. BARR: Dr. Forkner has had experience in the use of these substances, especially in the management of pulmonary embolism and pulmonary thrombosis. I should like to ask him to open the discussion of the preceding presentations and to tell us something about his own experiences.

DR. CLAUDE E. FORKNER: I have not made a study of this problem but have merely followed some of the facts that have been reported in the literature dealing particularly with heparin. I think it is a very good thing to hold this conference here because I feel that we have been a little slow in utilizing some of the valuable work done elsewhere, especially the work on heparin.

The chief purposes for which heparin has been used in this hospital have been the treatment of patients with subacute bacterial endocarditis (about which I hope Dr. Deitrick will say a few words later), and of some patients with pulmonary emboli, secondary to either peripheral thrombosis or to the formation of mural thrombi.

I think it should be emphasized that in patients with pulmonary emboli the procedure of causing a prolongation of the coagulation time often is a life-saving procedure. I have here the records of 3 patients whose lives I feel were saved by such a procedure. Some of you have seen the patients. Two of them were on the wards and another one was a private case.

One of the patients was a physician suffering from typhus fever who, during his convalescence, developed phlebitis, first in one leg and then in

the other. He was having pulmonary emboli very frequently, and eventually a large embolus lodged in his left axillary artery. We felt that the emboli in the lungs were coming from the phlebitis which he had in the vessels of his legs and that the embolus in his left axillary artery probably was from a mural thrombosis in the left side of the heart. As you know, typhus fever is a disease largely affecting the intima of the blood vessels. The organisms, the Rickettsia, live there, and consequently, thrombosis and embolism are fairly common in this disorder.

It was with some hesitancy that we gave this man heparin. I think Dr. Reznikoff really led us to do it. From the time that the patient was given heparin there was an immediate cessation of pulmonary emboli, and he progressively improved. Also, there was a cessation of extension of his peripheral thrombophlebitis. The embolus that lodged in his left axillary artery was treated by means of suction and pressure on the extremity together with heparinization of the patient. We feel that heparin was perhaps an important factor in saving the extremity as well.

Another patient who was recently on the wards came into the hospital with rheumatic heart disease and extensive phlebitis of both legs. She was having frequent pulmonary emboli, was almost moribund, had high fever and fluid in the chest, and was in a state of collapse. As soon as the heparin was administered she ceased having additional pulmonary emboli, the phlebitis in her legs subsided, and she finally recovered.

A third patient injured his legs in an airplane accident, and later developed an extensive phlebitis with showers of pulmonary emboli. He was in great distress from shortness of breath. X-rays showed his lungs to be full of emboli. Heparin was given, and he had no subsequent pulmonary emboli.

In each instance the life of the patient seemed to have been saved by the administration of heparin.

I do not wish to convey the impression that every patient who has pulmonary emboli should be given heparin or dicoumarin, but I do think that in pulmonary embolism, serious consideration should be given to the use of these anticoagulants.

An important point which is not usually appreciated is that prior to fatal emboli in the lungs at least 30 per cent of the patients have had emboli previously. In other words, there is a warning embolic process which precedes the fatal episode. Personally, I feel in view of the extensive evidence which has been accumulated, that we should use this antithrombic treatment on patients who have had operations after which

phlebitis or thrombosis with possible pulmonary embolism might be expected. As has been mentioned, the Toronto group and others have had about 1,000 surgical cases in which no pulmonary emboli have been encountered, whereas in a comparable control group the incidence was about 9 or 10 per cent.

Another point which I think should be mentioned here, and which has not been sufficiently stressed, is the possible value of this drug in the treatment of mesenteric thrombosis. As you know, mesenteric thrombosis carries with it a very high mortality rate. The results in the literature today show that heparinization of these patients is of extreme value when used alone or when used in addition to resection.

I think the other points I have in mind will be covered in the discussion which is to follow.

DR. BARR: I am sure there must be many questions.

DR. PAUL REZNIKOFF: I wonder whether Dr. Deitrick can tell us of the results of the treatment of coronary thrombosis.

DR. JOHN E. DEITRICK: The aspect of coronary disease in which we are interested is the prevention of progressive thrombus formation following a coronary occlusion by the use of heparin. If we could accomplish this, the collateral circulation might be more easily established. It is well known that a man can have one, two, or three coronary thromboses and survive.

About two years ago we received a rather small supply of heparin and treated four patients. All I can say is that we observed no ill effects. All four survived, although one man had, when treatment was started, a blood pressure between 80 and 90 and was practically in shock; he was given heparin continuously.

We did not know how long to carry on treatment. We tried to limit treatment to the patients who had suffered a severe attack of pain three or four hours before arriving at the hospital. We felt that heparin should be given as soon as possible after the onset of pain and should be continued for 48 to 72 hours, but we knew of no way to evaluate our results unless we had a large stock of heparin so that we could treat alternate cases and study the mortality rate.

DR. FORKNER: I should like to make two additional points. In thrombosis of a blood vessel, the mere existence of a thrombus may be less menacing than the deposit of additional material upon it and the later breaking off of portions of this material to form emboli. In coronary occlusion, one of the chief dangers may be an extension of the existing thrombus and injury to the cardiac wall so that mural thrombi are formed well after the original coronary oc-

clusion. Heparin should tend to prevent such unfavorable developments and thereby lessen the hazard of this serious disorder.

DR. REZNIKOFF: Dr. Best contends that there is no evidence that heparin will dissolve the thrombus once formed, but many people have observations which do not agree. One of the investigators who insists that heparin can dissolve an existing thrombus is Murray himself, who works with Best, although in their combined papers they say nothing about this effect.

I should like to ask Dr. Duryee whether he has any observations on the effect of heparin on an existing thrombus.

Another question I should like to ask is this: Has he any information about protamine, which Chaugus and Olson claim is an antidote to heparin? Also does protamine act as an antidote for an overdose of dicoumarin?

DR. DURYEE: The first question is: What happens when one gives dicoumarin or heparin to a patient in whom a thrombus has formed and an extension has taken place? I believe the arguments are stronger against the theory that heparin dissolves the thrombus than are those in favor of it. The chief argument against it is that usually at the beginning of heparin therapy all pulmonary emboli are stopped. Any of you who have opened a vein or have seen one opened know that the proximal end of a thrombus is usually free, not attached to the wall. Frequently it waves like a flag in the fluid blood, and if the heparin actually had a dissolving action on such a thrombus one would expect an increase in pulmonary emboli. Almost universally, pulmonary emboli are controlled.

The observers maintaining that the thrombus is dissolved usually base their evidence on examination of tissue removed a few days, a week, or ten days after primary thrombosis has occurred. During the course of the thrombosis a "clot" could be felt, but on tissue study it has disappeared. We know that a thrombus formed in the veins in acute thrombophlebitis sometimes completely disappears spontaneously in ten days or two weeks, so that examination of the tissue even four or five days later may lead erroneously to the conclusion that heparin dissolved the clot. Dr. Pratt produced thrombi chemically in the veins of animals and studied those veins one, two, five, and ten days, and up to four months later. It was extremely interesting to watch the disappearance of the thrombi. It is my belief that heparin has no effect on the dissolution of emboli.

Regarding your second question relating to the effect of protamine, I may say that we have used this substance in 3 or 4 cases in which the

clotting time became elevated to one hour or more. In each instance protamine seemed to control the clotting time and to lower it almost as rapidly as would whole blood transfusion.

I should like to bring out the indications for the use of dicoumarin versus heparin. Dicoumarin costs the patient only about \$1.00 a day while heparin costs \$20 to \$25 a day. I think our information on dicoumarin is sufficiently advanced at present to say that whenever prolonged therapy is required in the absence of immediate need for quick anticoagulant action, dicoumarin is the drug of choice. Furthermore, one may start with heparin and continue with dicoumarin after twenty-four or forty-eight hours.

Dicoumarin has certain dangers from which heparin is free. It takes days for its effect to subside, but with the use of whole blood and probably of protamine to control it, this may not restrict its use seriously. I think that in an emergency requiring anticoagulant therapy for a few days only, heparin should be chosen.

DR. MCKEEN CATTELL: With respect to correction of coagulation time by antagonistic agents, I just had the opportunity to read a report of some work that has been done in the Parke, Davis Laboratory by McGinty and Pfeiffer. They have succeeded apparently in preparing a purified solution of beef prothrombin and have found it to antagonize completely the effects of dicoumarin in dogs.

DR. FORKNER: I might say that a heparin preparation which is marketed by Hoffmann La Roche contains 10 mg. per cc. There are 100 mg. or 10,000 units in the vial.

DR. BARR: It would be very interesting to hear of Dr. Duryee's experience with the use of anticoagulants in Buerger's disease.

DR. DURYEE: We have run into a few obstinate cases of Buerger's disease. Its treatment is not the problem it used to be because if two principles of therapy are followed the course of the disease may usually be arrested successfully. These are the cessation of the use of tobacco and therapy with a vasodilator. We have used typhoid intravenously to produce fever and secondary dilatation. The cases in which the venous pathology predominates seem to be the most resistant to anticoagulant therapy.

I might discuss the case of a patient who was at Welfare Island, and who had gangrene of all four extremities, involving the tips of three fingers of each hand and all the toes. He had been followed in our clinic at Post-Graduate, and because we thought he had not discontinued the use of tobacco, he was hospitalized at Welfare Hospital. He was given dicoumarin (100 mg. at first and then 200 mg. every day). For a period of eighteen days everything was satis-

factory, but suddenly his prothrombin time went over forty seconds and he bled from everywhere—from the tips of his fingers, from the gangrenous lesions—and he developed a mild hematuria, so that we thought he was going to die. He was given 250 cc. of whole blood and a day later another 250 cc., and in twenty-four to forty-eight hours the bleeding stopped. His blood count at the end of twenty-four hours after the second transfusion was about two and one-half million RBC with about 40 per cent hemoglobin; however, without further transfusions but with a high protein diet, iron, etc., he rapidly restored the blood loss. He was polycythemic before the bleeding as are most cases of Buerger's disease. He has been followed in the clinic for six or seven months since the bleeding, with no further lesions.

I might mention a case of diabetes in which endarteritis had produced gangrenous lesions. This patient did not have severe toxic effects. The 200-mg. doses were continued for several weeks and in about eighteen days after stopping them, the coagulation time came back to normal, and the lesions healed.

Another case of thrombo-angiitis obliterans bled, although not dangerously. The 200-mg. dose was given for only six days before some hematuria occurred. This patient was thirty-seven years of age, with a gangrenous big toe which healed very rapidly following dicoumarin therapy.

DR. BARR: Do you have, Dr. Duryee, any suggestions regarding literature which summarizes some of the advances in this relatively new field of therapeutics?

DR. DURYEE: Last fall Dr. Wright presented at the New York Academy of Medicine a paper which was published in the *Bulletin of the New York Academy of Medicine* in July of 1942. I think it contains about the fullest bibliography up to that time, and it was brought up to date just before publication. It contains 117 references.

At the American Medical Association meeting of this year there was a symposium on this subject before the Section on Pharmacology. These papers were recently published in the *Journal of the American Medical Association*.

DR. BARR: Dr. Duryee, on behalf of the whole group I should like to extend our thanks to you for coming here, and giving us your experiences on this important subject.

Summary

DR. STEPHEN KROP: In conclusion, it may be said that in recent years great progress has been made in the use of anticoagulants in the treatment of disorders of embolic origin. Results of

treatment of peripheral vascular disease and of thrombosis following surgery of blood vessels by means of heparin and dicoumarin are encouraging. There are indications that anticoagulants may be useful prophylactically in connection with surgery after which phlebitis or thrombosis might be expected.

Although regarded as being in the experimental stage, dicoumarin is the drug of choice for prolonged therapy. It is effective orally, its action develops slowly but is persistent, overdosage may be counteracted by fresh whole blood transfusion and Vitamin K, and it is relatively cheap. Contraindications are hepatic and renal damage. Hemorrhage is rare if the dosage is determined primarily by the degree of prolongation of clotting and prothrombin times; it appears desirable that these be kept at about

20 minutes and 35 to 60 seconds, respectively. This is usually attainable by an oral dose of about 200 to 300 mg. and a daily maintenance dose of 100 to 200 mg. Its slow onset of action narrows considerably its usefulness in emergency as well as in conditions requiring anticoagulant therapy for a day or two only. Because of its rapid onset of action, heparin is the choice under such conditions. Prolonged therapy with heparin has two disadvantages: necessity for continuous intravenous infusion (it is ineffective orally) for maintenance of effect, and high cost. A dose of about 20 or 30 mg. per hour usually produces a safe and effective level of action; although dosage must be governed primarily by the degree of prolongation of the clotting time. The contraindications are similar to those for dicoumarin.

MEDICAL HISTORY—AS YOU LIKE IT

From as far back as Greek antiquity, and even in biblical times, the snake has been used as a symbol of medicine and health. Presumably it was because the principle of life was represented by the serpent with its ability periodically to cast off its skin and apparently renew its youth. Accordingly, tamed snakes were used in the temples of Aesculapius for the psychic effect and also to lick wounds of the patients. Aesculapius, the Grecian god of medicine, is always represented as carrying a heavy, rough staff with a single serpent entwined about it—the staff for walking and the serpent as a symbol of medical knowledge or healing powers.

The winged caduceus used today as the emblem of the medical profession is a light wand with a pair of wings at the top, having two snakes entwined about the wand. It was originally the wand of Mercury, messenger of the gods, and later symbolized the peaceful conduction of business—the mercantile world as opposed to the military. A somewhat similar form of this caduceus was also used as the staff of Hermes, who was god of many things, such as

the wind and air, as well as robbers, thieves, and traitors, and guide of souls to Hades. Some have facetiously suggested that from this latter duty of Hermes the caduceus came to symbolize the medical profession.

Just exactly how the winged caduceus, which has no legendary association with medicine, came to represent the profession is not known. It is thought, however, that certain medical printers used it as a part of their frontispieces to show the unity between medicine and letters as indicated by the two entwined snakes. From this it was probably misrepresented as being an emblem of medicine and later incorporated on the insignia of the U.S. Army Medical Corps—its misuse being practically assured from then on.

No matter how widespread its use, however, the winged caduceus with two entwined snakes is actually not a symbol of the medical profession. The only true emblem is the rough staff with a single serpent, the staff of Aesculapius, god of medicine.—*Westchester Med. Bull.*

SURGICAL FEATS BY AMATEURS

As a consequence of the emergencies of war, at least two amateur surgeons have performed operations with entirely successful results. Reported surgical feats by nonmedical men have included an appendectomy performed in a submarine submerged in Japanese waters and a leg amputation done in the thick of battle on the Tunisian front.

Thomas A. Moore, of Chino Valley, Arizona, chief surgeon's mate on the submarine *Silversides*, operated on Fireman George W. Platter, of Buffalo, to remove a severely inflamed appendix. Although

it was Moore's first appendectomy, he had witnessed several others and remembered the process.

The second bit of amateur surgery was performed by Lt. Walton Goodwin, of Richmond, Virginia, who rescued one of the members of his tank platoon from German gunfire in Tunisia, and finding the man's leg badly shattered, decided to amputate before carrying him from the field. Lt. Goodwin administered morphine and sulfanilamide, amputated the leg, and then carried his patient across the open field to cover.

Case Report

SCIATIC PAIN AS INITIAL SYMPTOM OF SUBARACHNOID HEMORRHAGE

NATHAN SAVITSKY, M.D., and ISRAEL STRAUSS, M.D., New York City

PAIN in the extremities and other evidence of root irritation has been described in spinal subarachnoid hemorrhage. Lux and Adloff and others have reported such cases. The onset of the condition may be characterized by sudden, severe sciatic pain. There has, however, been very little emphasis laid on the occurrence of such sciatic pain in subarachnoid hemorrhage caused by intracranial bleeding. Rossi and Montemezzi report severe pain in the right lower limb in the sciatic distribution two days after the sudden onset of severe neck pain, vertigo, and vomiting. Osterman refers to a case which began with severe sciatic pain on both sides two days after the sudden onset of sharp occipital headache and stiffness of the neck. Rothmann mentions pains in the sacral region radiating down into the lower limbs in a patient soon after the onset of subarachnoid hemorrhage. Libman states that he has seen basilar subarachnoid hemorrhage in which the pain began in the region of the coccyx. (See Reference.)

Case Reports

Case 1.—The first case is that of a 15-year-old boy who complained of pain of five days' duration in the left sciatic distribution. The onset of the pain was sudden and was accompanied by mild and transitory left-sided headache. Pain in the left lower limb persisted and was not relieved by analgesic medication. The pain was very severe. He was brought to the hospital by ambulance, although he was able to walk into the admitting room and to respond relevantly to all questions. Because of the severe sciatic pain, he was referred to the orthopaedic clinic. From there he was sent home. He had no other complaints at the time which justified an immediate neuropsychiatric consultation. Twenty-four hours after he had returned home, the ambulance was called again because he could not walk. On admission to the hospital he looked acutely ill, was drowsy, but responded relevantly to question. His neck was stiff and there was a bilateral Kernig; there was a right central facial and the right pupil was irregular; there was a right Babinski, a left ptosis, and left-sided internal rectus weakness. There was no tenderness of either calf; he soon after admission did not complain of pain in the lower limbs. The spinal fluid was bloody in all of 3 test tubes. Each test tube was equally bloody, and the blood did not clot. There was supernatant xanthochromia. The patient did very poorly. He became stuporous and did not respond to treatment. His pulse and temperature began to rise (he was afebrile on admission). He died seven days after admission.

In this first case the presenting symptom and outstanding complaint was pain in the left sciatic distribution. No sensory or motor changes were found in the lumbosacral distribution. The patient was considered at first a problem for the ortho-

paedist. The left-sided headache, which appeared soon after the leg pain, was not severe enough to require further study when he was seen for the first time.

Case 2.—The second case was that of a 22-year-old woman who was admitted to the hospital with a history of pain of eight months' duration in the posterior aspect of the right extremity. This pain varied in intensity, with occasional severe exacerbations. Two months before admission she complained of sudden blurring of vision. Some diminution of vision persisted to the day of admission. The examination showed raised nerve heads with blurred disk margins, concentric constriction of both visual fields, an increase in the size of both blind spots, and marked hyperopia. In addition, there was a definite positive right Laségue and hypesthesia with hyperalgesia in segments L-3 to L-5 inclusively on the right side. The spinal fluid showed a pressure of 20 mm. of water, xanthochromia with a 2 plus globulin and no cells. The total protein was 135 mg. per cent. There was no evidence of block on manometric study. The blood and spinal fluid Wassermanns were negative. The patient was discharged with a diagnosis of lumbosacral radiculitis and pseudopapilledema. After her discharge she continued to complain of pain in the lumbosacral region on both sides. Diminution of visual acuity became more marked, with stabbing pains in both eyes. This continued for two months before her readmission which took place four months after she was first admitted. On the second admission she showed papilledema of 1½ to 2 diopters and depressed tendon reflexes. The sensory changes in the lumbosacral dermatomes previously noted were not present. A lumbar puncture showed some xanthochromia and an initial pressure of 240 mm. of water. Encephalographic studies showed dilated ventricles with a cyst in the left frontal lobe which communicated with the ventricular system. The spinal fluid became more and more bloody as it was withdrawn for the encephalogram. At operation a hemangio-endotheliomatous cavernoma was found in the left frontal lobe and removed. The sciatic pain disappeared completely after operation.

This second case is somewhat more difficult to interpret. Evidence of lumbosacral root irritation had been present for over a year before operation. The spinal fluid was found to be xanthochromic without evidence of manometric block. A bleeding vascular tumor of the cerebral cortex was found to be the source of hemorrhage into the cerebrosplinal spaces. Bleeding was probably slow. There was no history of an apoplectiform onset. No other cause for the sciatic pain or lumbosacral root irritation was found. While the question of the possibility of a coincidence came up in interpreting the sciatic pain, we are inclined to accept a causal relation between the chronic and repeated meningeal bleeding and the pain in the lower limbs. We

therefore believe that there is ample proof of the theory that blood in the cerebrospinal spaces can cause irritation of the spinal roots, for this case indicates that chronic bleeding from an intracranial source can cause pain in the lower limbs.

Summary

Two cases of subarachnoid bleeding are reported. In both, the source of bleeding was intracranial. Pain in the sciatic distribution was the presenting symptom in both cases. The

cause of this pain was irritation of the spinal roots in the lumbosacral region. Acute and chronic bleeding into the subarachnoid space can cause pain in the lower limbs.

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MUSCULAR EXERCISE AND FATIGUE IN DISEASE

Since 1900 many investigators have studied patients during and after muscular work. Simonson and Enzer present an analytic review of such investigations of the gaseous exchange and the circulatory and respiratory functions. Distinctions between demonstrable fatigue and complaints of fatigue must be established by precise objective methods. Following analysis of the effect of disease on performance in various types of work, it might be possible to direct patients with chronic diseases toward occupations in which their working capacity would be least reduced. Control of the tax on their working capacity would be good therapy. Investigation during work permits a better understanding of the patient's actual condition than examination during rest. The patient may still be fully compensated while at rest but not for the increased demands during and immediately after muscular work.

Thus the investigation of patients by means of exercise tests is especially important for those on the verge of cardiac decompensation. The state of the patient depends more on the interrelation of several functions than on any single function. Investigations during muscular work will help to recognize the weakest point at which decompensation is most likely to occur.

When the problem is viewed from this aspect, disease may be defined as "diminution of working capacity." Hence the measurement of the maximum working capacity should be an ideal method by which to determine the extent of the damage produced in the organism by pathologic processes. Severe lesions of the heart do not necessarily impair maximum performance for muscular work. Apparently it is not the primary lesion but the breakdown of the compensatory mechanism which leads to signs and symptoms of circulatory insufficiency.

Among the methods used to measure maximum working capacity, a number of investigators were concerned with the rate of maximum oxygen intake. Measurement of the maximum oxygen intake is an indirect method for determining the maximum minute volume of the heart, provided the pulmonary system is intact. The decrease of the maximum oxygen intake was found to be proportional to the degree of insufficiency for working condition; that is, to the decrease of the circulatory reserve. The decrease was especially pronounced for patients with mitral stenosis, whose maximum oxygen intake reached only the value of 200 to 300 cc. per minute. This is only slightly above the resting state of oxygen consumption. The rate of maximum oxygen intake is a reliable index of cardiac reserve, provided pulmonary complications are not involved.

In the latter case the maximum oxygen intake indicates the capacity of the respiratory and circulatory systems. If the maximum oxygen intake exceeds a value of 1,300 cc. per minute it may be assumed that there is no circulatory insufficiency. This is an objective method, although it depends on the patient's cooperation to work with maximum effort. Another objective method involves measurement of the maximum oxygen debt, which is the excess oxygen consumed during the recovery period. The maximum oxygen debt is lower in patients with heart disease.

Investigations of this type brought out some interesting facts. Efficiency in any type of work is considerably reduced in patients with hyperthyroidism. The deviations of efficiency here are much greater than in heart disease. In beginning exophthalmic goiter the coefficient of efficiency may be decreased before the basal metabolic rate is elevated. Thyroidectomy leads to a consistent improvement of the efficiency, while the improvement of the basal metabolic rate was not so consistent. Thus it appears that the coefficient of efficiency more nearly parallels the seriousness of the disease than does the increase of the basal metabolic rate and therefore might be of considerable diagnostic and prognostic value. Another important index in the analysis of pathologic conditions is the speed of oxidative processes. This may be determined during and after exercise by measuring (a) the speed of the increase of oxygen consumption during the period of adaptation (the first five minutes of work), (b) oxygen debt, and (c) recovery speed. Oxygen debt is contracted during the period of adaptation, so that the increase of oxygen consumption during the adaptation period is the fundamental process to which the final oxygen debt is related. The oxygen debt is considerably increased in patients with heart disease, and the increase parallels the degree of symptoms of decompensation. Hence the measurement of the oxygen debt would seem to be an ideal method for evaluating the state of patients with heart disease. Oxygen debt has been found to be increased in chronic bronchitis, emphysema, advanced lung tuberculosis, and pronounced silicosis. Oxygen debt reflects the delay of oxidative processes during the adaptation period.

On the basis of the investigative data the reviewers conclude that there is a quantitative rather than a qualitative difference of physiologic processes in exercise in disease. Fatigue and disease are intimately related. This relationship explains why fatigue is the most common complaint in disease.—J.A.M.A.

Case Report

VESICULAR ERUPTION FOLLOWING SULFATHIAZOLE INTOXICATION

EMANUEL APPELBAUM, M.D., and EDGAR H. BACHRACH, M.D., New York City

MANY observers have stressed the pronounced frequency of cutaneous manifestations with sulfathiazole medication. Haviland and Long¹ gave the incidence of this toxic reaction as 12.8 per cent in a group of 73 cases. Flippin² and his coworkers found four instances of skin reaction in 100 patients. Volini³ and his collaborators reported an incidence of 3.9 per cent in a group of 180 patients.

The various rashes encountered with sulfathiazole intoxication have been described in detail by Haviland and Long and by Volini *et al.* The lesions have been recorded as urticarial, maculopapular, nodular, or purpuric. The nodular form of rash has been regarded as particularly distinctive. These raised lesions are dark reddish and slightly tender. Some are from 2 to 5 cm. in diameter, frequently simulating erythema nodosum. They occur more commonly on the extensor surfaces of the legs and forearms although they may appear on the thighs and upper arms.

In addition to these lesions, we wish to call attention to a fine vesicular eruption which we have encountered in 2 of our patients. We could find no reference in the literature to this type of rash following sulfathiazole intoxication.

Report of Cases

Case 1.—W. S., a man aged 25, was admitted to Bellevue Hospital on October 22, 1941, with the chief complaints of vomiting, chills, and fever of twelve hours' duration. The onset of these symptoms was sudden. He complained also of headache, moderate epigastric pain, and backache. Three weeks before he had contracted an acute gonococcal urethritis, for which he was given sulfathiazole. He received from 3 to 4 Gm. of the drug daily during the three-week period. Two weeks previously he had had a mild upper respiratory infection. He gave a past history of dengue fever and of syphilis nine years before and of an attack of gonococcal urethritis three years before.

Physical examination revealed a well-nourished adult appearing acutely ill and apathetic. His skin was hot, flushed, and covered with profuse perspiration. The conjunctivae were markedly injected. The pupils reacted to light and accommodation. The ears, nose, and throat presented no abnormal findings. The lungs were clear. The heart appeared normal. The blood pressure was 120 systolic and 70 diastolic. There was slight tenderness in the epigastrium on deep pressure. The spleen was enlarged. There was a generalized skin eruption. The lesions were discrete and consisted of small macules, in the center of which were minute white elevations resembling the pustules of staphylococcus bacteriemia. All the reflexes were active and there were no pathologic reflexes. The fundi were normal. The temperature was 103.6 F., the pulse 138, and the respirations 28.

The white blood count was 6,300, with 79 per cent polymorphonuclears and 21 per cent lymphocytes. The red blood count was 4.78 million, with 95 per cent hemoglobin. The blood smear was negative for malarial parasites. The urine was essentially normal. The blood nonprotein nitrogen was 34 and the sugar 106 mg. per cent. Agglutinations for typhoid, paratyphoid A and B, melitensis, and typhus were all negative. The erythrocyte sedimentation rate was 5 mm. in one hour. The blood culture was sterile. The sulfathiazole level in the blood was 2.1 mg. per cent.

When the possibility of staphylococcus bacteriemia was considered shortly after admission, the patient was given 3 Gms. of sulfathiazole. However, it soon became apparent that the eruption was vesicular and not pustular. The skin lesions as well as the fever were then considered to be due to sulfathiazole intoxication and the use of the drug was discontinued. There was a prompt improvement in the clinical picture. Within forty-eight hours the rash disappeared and the temperature dropped to normal (Fig. 1).

In this case a diagnosis of staphylococcemia was made at first, and more sulfathiazole was administered. Fortunately the vesicular character of the rash was soon recognized and the possibility of sulfathiazole intoxication was therefore considered. Further use of the drug was promptly discontinued with most gratifying results.

Case 2.—B. S., a woman aged 44, was treated at home for thrombophlebitis with 17 Gm. of sulfathiazole and restricted fluid intake. This was followed by a rise in temperature, development of burning in the eyes, asthenia, headache, nausea, and oliguria. She was admitted to Sydenham Hospital on November 14, 1941. Her past history was essentially negative.

Physical examination revealed a rather obese adult female in a semistuporous state. The temperature was 106 F., the pulse 144, and the respirations 32. There was a marked suffusion of the conjunctivae. The pupils were small but reacted to light and accommodation. The fundi were normal. The lungs were resonant throughout and showed a few crackling rales at the bases. The breath sounds were vesicular throughout. The heart sounds were moderately muffled and there was a short systolic murmur at the apex. The blood pressure was 138 systolic and 80 diastolic. The abdomen was soft, and the spleen was not palpable. The left leg showed the features of a thrombophlebitis as characterized by cordlike areas of redness and tenderness. Over the trunk and extremities there was a polymorphous eruption consisting of three types of lesions. There were maculopapular nodules involving mainly the extremities, especially in the region of the elbows. These varied in size from 0.25 to 1 cm. in diameter and resembled somewhat the eruption of erythema nodosum. Scattered over the back were a number of small, deep-red macules and papules. The most

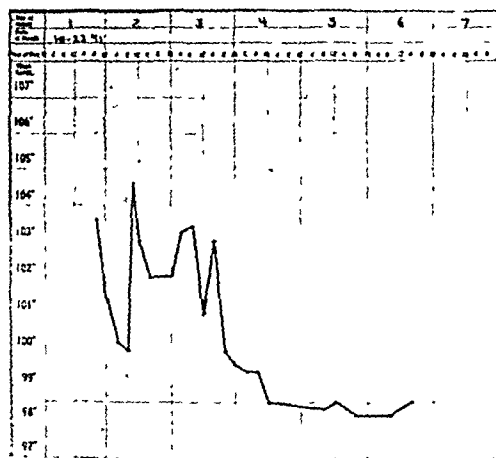


FIG. 1.

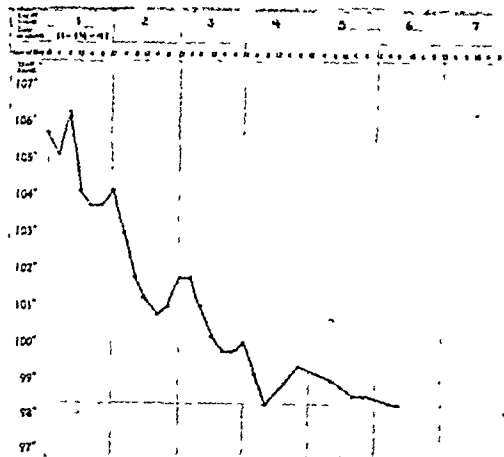


FIG. 2.

striking lesion was a minute vesicle surrounded by a small red areola. These vesicles were numerous and scattered all over the body. The reflexes were present but diminished. There was no nuchal rigidity and no Brudzinski or Kernig signs.

The white blood count was 12,400, with 87 per cent polymorphonuclears, 9 per cent lymphocytes, and 4 per cent monocytes. The red blood count was 4.93 million with 100 per cent hemoglobin. The urine showed a specific gravity of 1.020, traces of albumin and sugar, an occasional white blood cell per high-power field, and many sulfathiazole crystals. The blood culture was sterile. A roentgenogram of the chest revealed a generalized increase of pulmonic markings but no signs of pneumonic consolidation. The blood sulfathiazole level was 0.7 mg. per cent.

Shortly after admission the patient received 1 Gm. of sulfadiazine. However, it was soon seen that the patient was suffering from sulfathiazole intoxication and further use of sulfonamides was discontinued. No other treatment was administered except the forcing of fluids. There was prompt improvement in the clinical picture. Within seventy-two hours the temperature dropped to normal (Fig. 2). The skin lesions disappeared and the mental state cleared completely. The patient made an uneventful recovery and was discharged six days after admission.

The presence of sulfathiazole intoxication in this patient was recognized very shortly after admission. It is to be noted that in addition to the vesicular lesion the patient also presented some of the more common eruptions encountered in this form of intoxication. The general toxic appearance, and the semistupor were also conspicuous. The prompt improvement following withdrawal of the drug was very striking.

Discussion

In this paper we wish to stress particularly the vesicular eruption. As stated previously, the lesions

were discrete and consisted of minute, elevated white vesicles. Each vesicle was surrounded by a small red areola. The lesions were scattered over the body surface, involving mainly the torso. They had a superficial resemblance to the pustular eruption frequently encountered in staphylococcal bacteremia. Indeed, the diagnosis of staphylococemia was first made in Case 1. Puncture of these vesicles yielded a very small amount of serous fluid but no pus.

It is to be noted that the patients presented additional toxic manifestations. Both patients showed marked injection of the conjunctivae. This feature of sulfathiazole intoxication has been pointed out by several observers. Case 2 showed also other skin lesions, including the distinctive nodular type of eruption. The toxic appearance of the patients and their apathetic semistuporous state were very striking associated symptoms. A high fever was a characteristic accompaniment.

The usual form of eruption encountered with sulfathiazole medication as a rule offers little difficulty of diagnosis. It is not unlikely that the vesicular type of lesion which we have described has in the past escaped recognition and has, in some instances at least, been regarded as evidence of staphylococcal bacteremia. It is of paramount importance to recognize the eruption in order to discontinue further use of the drug.

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Postgraduate Medical Education

Plasma Therapy and Whole Blood Transfusion

A SINGLE lecture on "Plasma Therapy and Whole Blood Transfusion" has been arranged for the Clinton County Medical Society to be held Tuesday, May 18, at 6:30 P.M. at the Hotel Witherill in Plattsburg.

The speaker will be Paul C. Clark, M.D., assistant professor of clinical medicine, Syracuse University College of Medicine, Syracuse. The instruction has been arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York and the New York State Department of Health in cooperation with the Medical Division of the Office of Civilian Defense and the Health Preparedness Commission of the State of New York.

The same sponsors presented another lecture on "Plasma Therapy and Whole Blood Transfusion" before the Greene County Medical Society on Thursday, April 29, at 9:00 P.M. in the Memorial Hospital at Catskill. Samuel Standard, M.D., assistant professor of surgery at the New York University College of Medicine in New York City, was the lecturer.

The subject of plasma therapy was also discussed before the Steuben County Medical Society at a meeting held on Thursday, April 8, at the Baron

Steuben Hotel in Corning. The speaker for the group was Joe W. Howland, M.D., instructor in medicine, University of Rochester School of Medicine and Dentistry, Rochester.

A similar lecture was heard by the Herkimer County Medical Society on Tuesday, April 14, at 4:30 P.M. Gilbert Dalldorf, M.D., director, division of laboratories, Grasslands Hospital in Valhalla, was the speaker.

The Steuben and Herkimer County lectures were presented through the cooperation of the State Department of Health and the Medical Society of the State of New York.

The Broome County Medical Society heard postgraduate instruction Tuesday, April 13, on the subject of "Plasma Therapy and Whole Blood Transfusion." The meeting was held at 8:30 P.M. in the auditorium of the Binghamton City Hospital in Binghamton.

The speaker was Earle B. Mahoney, M.D., assistant professor of surgery at the University of Rochester School of Medicine and Dentistry.

The instruction was presented through the cooperation of the State Department of Health and the Medical Society of the State of New York.

Treatment of Common Diseases

POSTGRADUATE instruction in the Treatment of Common Diseases has been arranged for the Jefferson County Medical Society by Dr. Clayton W. Greene, of the University of Buffalo School of Medicine. Meetings are to be held at 7:30 P.M. on Thursdays in the Black River Valley Club in Watertown, New York.

Lectures have already been given by the following speakers: Joseph McManus, M.D., clinical assistant in surgery, University of Buffalo School of Medicine, on "Recognition and Management of Shock"; Byron D. Bowen, M.D., associate professor of medicine, University of Buffalo School of Medicine, on "The Management of Diabetes with the Newer Forms of Insulin"; and Clayton W. Greene, M.D., professor of medicine, University of Buffalo School of Medicine, on "Treatment of

Precordial Pain." The remainder of the instruction programs will include:

May 13—"Office Management of Female Pelvic Disorders"

Clyde L. Randall, M.D., professor of gynecology, University of Buffalo School of Medicine, Buffalo.

May 20—"Evaluation of Common Drugs Used in General Practice"

A. H. Aaron, M.D., professor of clinical medicine, University of Buffalo School of Medicine, Buffalo.

Dr. McManus' lecture was presented through the cooperation of the New York State Department of Health and the Medical Society of the State of New York.

General Medicine

MEMBERS of the medical societies of Chemung, Schuyler, Steuben, Tioga, and Tompkins counties attended a Teaching Day on General Medicine on Wednesday, April 14, at the Mark Twain Hotel in Elmira. The program included:

3:00 P.M.—"Practical Application of Hormonal Therapy"

Ivan Hekimian, M.D., assistant professor of medicine, University of Buffalo School of Medicine, Buffalo.

"Office Management of Female Pelvic Disorders"

Clyde L. Randall, M.D., professor of gynecology, University of Buffalo School of Medicine, Buffalo.

6:00 P.M.—Dinner

8:00 P.M.—"Evaluation of Common Drugs Used in General Practice"

A. H. Aaron, M.D., professor of clinical medicine, University of Buffalo School of Medicine, Buffalo.

James A. Mark, M.D., chairman, Graduate Education Committee, Chemung County Medical Society, presided at the afternoon meeting, and F. Sullivan Hassett, M.D., president, Chemung County Medical Society, presided at the evening session.

The Teaching Day was sponsored by the Medical Societies of the participating counties and by the Medical Society of the State of New York.

Sulfonamide Therapy

A SINGLE lecture on "Sulfonamide Therapy" has been arranged for the Cortland County Medical Society for Friday, May 21. The lecture will be given at the Cortland County Hospital at 8:30 p.m. The speaker will be Charles D. Post, M.D., professor of clinical medicine, Syracuse University College of Medicine, Syracuse.

The lecture will be presented under the combined auspices of the Medical Society of the State of New York and the New York State Department of Health.

A Teaching Day on Sulfonamide Therapy was arranged for the Otsego County Medical Society on April 14. Instruction was given at the Mary Imogene Bassett Hospital in Cooperstown, New York. Subjects and speakers were as follows:

4:00 P.M.—"Treatment of Genitourinary Infections"

Leo E. Gibson, M.D. professor of

clinical surgery, Syracuse University College of Medicine, Syracuse.

"Local and Internal Use of Sulfonamides in Surgery"

Leon E. Sutton, M.D., professor of clinical surgery, University of Syracuse, Syracuse.

6:00 P.M.—Dinner

8:00 P.M.—"Treatment of Pneumonia"

Clayton W. Greene, M.D., professor of medicine, Buffalo University College of Medicine, Buffalo.

"Treatment of Meningitis"

A. Wilmot Jacobsen, M.D., associate professor and chairman of the Department of Pediatrics, Buffalo University School of Medicine, Buffalo.

The instruction was presented by the New York State Department of Health and the Medical Society of the State of New York.

SEASICKNESS AND AIRSICKNESS

About 40 per cent of any population group, Schwab [Schwab, R. S.: U.S. Nav. M. Bull. 40: 923 (Oct.) 1942] points out, are susceptible to seasickness on sudden exposure to rough weather at sea. . . . During wartime conditions when complete cooperation of all sea-going personnel is often required, the percentage and seriousness of seasickness may affect the efficiency of handling both merchant and combat vessels.

Schwab says in this article that chronic seasickness in naval personnel may be divided into two groups; those who are constitutionally sick with a history of car, bus, and other sickness, whose efficiency at sea is extremely low, and those who have severe seasickness without the history of other sicknesses on shore and with a fair degree of efficiency at sea. He suggests that those in the first group are not useful afloat and might be either discharged from the Navy or placed on shore duty. Those in the second group tend to improve with time or treatment or with transfer to larger ships.

Gastrointestinal abnormalities were found in over half of the whole group. . . .

A related problem of possibly even greater urgency is airsickness. Airsickness is a syndrome which includes sweating, pallor, nausea, and vomiting. . . . Flaherty [Flaherty, T. T.: U.S. Nav. M. Bull. 40: 902 (Oct.) 1942] reports that airsickness is frequently found among student pilots and usually occurs during the phase of training in acrobatics. There is, he says, a close neurologic relationship between the vestibular apparatus and the eye. Airsickness is due to poor orientation in space. It can ordinarily be overcome when a student becomes oriented in the air by using his eyes to pick up points of reference on the ground. Flaherty proposes a program to aid in ocular orientation. The program includes adjustment of the seat, tightening the safety belt, keeping the eyes out of the cockpit and on a distant object, and avoidance of repetition of a maneuver. During a ten months' period he treated an average of eighteen students a month by this means.—J.A.M.A.

GYNECOLOGIC INSTRUCTION

For the fifth consecutive season, a postgraduate course in gynecologic and obstetric pathology is being given this spring at the Israel Zion Hospital in Brooklyn. The course began on April 15.

The instruction, which is given by Dr. J. M. Ravid and staff, is sponsored by the Joint Committee of Postgraduate Education of the Long Island College of Medicine, the Medical Society of the County of Kings, and the Academy of Medicine of Brooklyn. Further information may be obtained from the registrar, 1313 Bedford Avenue, Brooklyn.

CELLULOID FOR FACE INJURIES

Developed by Dr. Neal Owens of the Tulane University School of Medicine, a new technic of rebuilding faces with celluloid has been successfully introduced, giving hopeful prospects of effectiveness in repairing face injuries of the war.

Celluloid was originally used during the first World War by an English surgeon, Dr. J. Hogarth Pringle, who tried it in repairing skull depressions. Dr. Owens' method is to mold the celluloid to form the missing contour, covering it with grafted skin. This process can be completed in one operation.

Medical News

Tuberculosis Diagnosis Campaign

FOLLOW the Example of the Armed Forces —Get a Chest X-Ray" was the slogan of the National Tuberculosis Association and its 1,700 affiliates in their sixtieth annual diagnosis campaign which was conducted throughout the month of April. The object of the campaign, according to Dr. Kendall Emerson, Managing Director of the Association, is to have industrial workers x-rayed as completely as men in the armed forces are. State and local groups all over the country carried on intensive educational drives and x-ray surveys in order to stress the necessity for discovering tuberculosis in its early, most easily curable stages.

In New York City, the Department of Health, the Coordinating Council of the Five County Medical Societies, and the Greater New York Tuberculosis and Health Advisory Committee joined

forces at a public meeting at the Fort Greene-Bedford Health Center in Brooklyn on April 1. Dr. James R. Reuling, Jr., chairman of the Advisory Committee, and president of the Queens Tuberculosis Association, presided.

Other speakers were: Hon. John Cashmore, president of the Borough of Brooklyn; Dr. J. Stanley Kenney, of the Coordinating Council of the Five County Medical Societies; Dr. Charles E. Lyght, director of health education of the National Tuberculosis Association, and Dr. Ernest L. Stebbins, commissioner of health, New York City.

A special feature of the campaign was a display of the "Healthmobile" of the Brooklyn Tuberculosis and Health Association, which portrays the story of tuberculosis through dioramas and other movable scenes.

National Negro Health Week

NATIONAL Negro Health Week was observed throughout the country from April 4 to April 11.

This custom, begun several years ago by the National Negro Business League, is observed annually. Its purpose is to disseminate health information to Negroes in every community in the United States. Negro church and civic organizations carry out the programs.

In an article published in the *Westchester Medical Bulletin*, Dr. Arthur M. Williams, of White Plains, a member of the Westchester County Medical Society and president of the White Plains Branch of the National Association for the Advancement of Colored People, writes:

"Economic factors and the general policy of segregation in the hospitalization of Negro patients definitely accentuate his health problem both as to incidence of disease and medical care. Because of his economic situation and color the greater proportion of our Negro population of Westchester County is forced to live under bad housing conditions.

"A survey of Westchester County would show that a greater number of cases of tuberculosis and other diseases of a communicable nature come from the slum areas. Westchester County, reputedly one of

the wealthiest in the nation, can ill afford to ignore disease or poor housing conditions, no matter where they exist.

"Disease, like fire, cannot be confined by an imaginary line or barrier, whether the latter be color, class, or economic status. The attention of the Medical Society of Westchester is invited during this period of Negro Health Week to the many health problems affecting Negroes directly, and all others indirectly. Your consideration might well be given to the fact that Negro physicians and nurses are not included among the members of the hospital staffs, and that in every hospital in the cities of Westchester County certain wards and a limited number of beds are designated for the use of Negro patients. When these facilities are in full use, beds in other wards are not available to the Negro patients.

"The White Plains Branch of the National Association for the Advancement of Colored People feels that these practices are both dangerous and unfair to the Negro in particular, and to the community welfare as a whole. Every effort is being exerted by the Association to cooperate with the various civic and medical groups to improve the health of Westchester."

County News

Broome County

At the meeting of the county society held in Binghamton City Hospital on April 13, the speaker was Dr. Earle B. Mahoney, assistant professor of surgery, University of Rochester School of Medicine and Dentistry. His subject was "Plasma Therapy and Whole Blood Transfusion." The program was arranged by the Council Committee on Public Health and Education of the State Society, in cooperation with the Medical Division of the Office of Civilian Defense and the Health Preparedness Commission of the State War Council.

Mr. Morris Gitlitz explained the regulations of the O.P.A. concerning additional food rations from a medical standpoint.

The following members have been appointed to represent the county society on the Council of

Social Agencies: Drs. W. J. Farrell, H. I. Johnston, and Florence Warner.

. . .

A Cancer Teaching Day, arranged under the auspices of the Council Committee on Public Health and Education of the State Society, was held in Phelps Hall at Binghamton City Hospital on April 23. Six speakers discussed cancer of the different parts of the body. They were: Dr. Fred W. Stewart, pathologist, Memorial Hospital, New York City; Dr. Chevalier Jackson, Jr., professor of clinical bronchoscopy and esophagoscopy, of the School of Medicine of Temple University, Philadelphia; Dr. Abraham H. Aaron, professor of

clinical medicine, University of Buffalo School of Medicine; Dr. Cornelius P. Rhoads, professor of radiology, Cornell University Medical College, and director of Memorial Hospital, New York City; Dr. William J. Hoffman, assistant attending surgeon, Skin and Cancer Unit, New York Post-Graduate Medical School and Hospital, and cancer consultant on the staffs of several Metropolitan hospitals; and Dr. F. D. Mooney, General Hospital, Buffalo.

There were two sessions of the meeting, one at 4:00 P.M. and the other after a dinner which was served in the Binghamton City Hospital.

Renewing the public health course which last year was conducted by members of the Broome County Medical Society, a series of films was shown at the Y.M.C.A. in April.

The subjects of the films were: April 1, "Digestion of Food," "A Family Affair," and "A New Day"; April 8, "Mechanism of Breathing," "The Heart and Circulation," and "Body Defenses Against Disease"; April 15, "The Nervous System," and "Reproduction Among Mammals"; and April 22, "Science and Modern Medicine."

The course was open to both men and women and there was no charge.*

Chautauqua County

Dr. George W. Cottis, who will retire from the presidency of the New York State Medical Society in May, was honored by 40 members of the Chautauqua County Medical Society at that group's spring luncheon on March 31 at the Hotel Jamestown.

Dr. Cottis discussed "Surgery in World Wars I and II."

Dr. Otto Lindbeck appointed Dr. C. E. Hallenbeck, of Dunkirk, to succeed Dr. F. J. Pfisterer as treasurer of the county society.*

The Jamestown Medical Society held a dinner meeting at the Hotel Jamestown on March 25, with covers for 25. Dr. Hilding A. Nelson presided. A discussion followed the dinner and business meeting.

Dr. George W. Cottis, president of the New York State Medical Society, presented a paper on "Surgery, Thirty Years Ago." This followed a sound film on the use of human blood plasma.*

Chemung County

The establishment of a prepaid medical insurance plan in Elmira and vicinity was discussed at a meeting of the county society held March 31 at the Arnot-Ogden Hospital.

The group heard explanations of the plans in effect in the Buffalo and Utica areas and in the State of Michigan, and of one designed by the Health and Credit Service of Elmira. The Michigan system is state-wide, with the state, county, and municipalities sharing in paying premiums for indigents.

The Blue Cross, which operates a hospital insurance system in Elmira and in most of New York State, will present a prepayment medical plan at the May meeting of the society.*

Appointment of Dr. George R. Murphy and Dr. Earl D. Smith as cochairmen of the Emergency Medical Service of the Chemung County War Council has been announced by Ralph D. Klebes, War Council chairman.

They succeed Dr. Ross G. Loop, chairman, who resigned because of ill health.

Dr. Murphy, Elmira pediatricist, has been assistant chairman to Dr. Loop. Dr. Smith is radiologist at the Arnot-Ogden Hospital. Their appointments were recommended by the Chemung County Medical Society.*

Clinton County

The county society held a meeting in the Cumberland Hotel in Plattsburg on March 31.*

Columbia County

Benjamin J. Slater, M.D., medical director of the Eastman Kodak Company, spoke at the annual meeting of the Tuberculosis Education Association of Columbia County on April 2 at 8 P.M. The meeting was open to the public.

Dr. Slater discussed the subject "A Planned Health Program," stressing the problems which arise during the war emergency.

As well as being medical director of the Eastman Kodak Company, Dr. Slater is president of the Seventh District Branch of the Medical Society of the State of New York, former president of the Medical Society of Monroe County, and chairman of the public health committee. He is an officer and a long-time member of the Tuberculosis and Health Association of Rochester and Monroe County. In addition, he has had a great deal of experience as a speaker on public health problems.*

Erie County

Dr. Chas. Gordon Heyd, surgeon and University of Buffalo alumnus, addressed the 66 graduates of the University of Buffalo School of Medicine at a special wartime commencement on March 24.

Dr. Heyd was president of the American Medical Association in 1936-1937 and also has been vice-president of the American College of Surgeons, treasurer and president of the New York State Medical Society, and president of the New York County Medical Society. He is a specialist in liver diseases as well as general surgery. He is chief surgeon at the Post-Graduate Hospital and clinical professor of surgery at the Columbia University College of Physicians and Surgeons in New York City. A Canadian by birth, Dr. Heyd became a citizen of the United States in 1917. In World War I he served overseas in the medical service and in 1932 France made him a member of the Legion of Honor. In 1932 also he was chairman of the American delegation to the International Congress on Gallbladder Disease, held in Vichy, France.*

The following editorial appeared in the Buffalo Courier-Express of March 28:

Dr. Louis A. Kaiser, Buffalo medical representative for the New York Athletic Commission, really hit the jackpot at the University of Buffalo. When Dr. Thomas F. Kaiser was awarded the Roswell Park prize for excellence in surgery last week it marked the completion of a remarkable cycle of family achievement in medicine. Thomas is the third of three sons to receive the surgery prize. It marked the first time in the history of the university that three sons of one

* Asterisk indicates that item is from local newspaper.

family were winners of the award. The three young doctors have had almost identical careers. Major John B., the eldest, was graduated from Canisius High School in 1927, Canisius College in 1931, and received his medical degree from the university in 1935. He is now serving with the Army in the South Pacific area. Dr. Robert A. Kaiser, now on the staff of the Buffalo General Hospital, was graduated from Canisius High in 1934. He then entered Niagara University where he starred in basketball, graduating in 1938. He gained his medical degree last year. Dr. Thomas was graduated from Canisius High in 1935, and from Canisius College in 1939. Dr. Kaiser, himself, the father, also established a record at the university. Receiving a degree in pharmacy in 1904, he was the youngest in the university's history to earn such an honor. He gained his medical degree in 1909. Nice going, Doctors!

Senescence should be made more useful with the ever increasing demands for manpower in this war, Dr. Frederick W. Filsinger, of Buffalo, told the Erie County Medical Society on March 23 in a talk entitled "The Forgotten People." Dr. Filsinger has been practicing for forty-five years and has been studying the problems of senescence for many of them.

"For many years," he said, "the public has been laboring under the impression that men between 50 and 60 have outlived their usefulness. But now, in spite of their infirmities, cramped legs, and aching heart and feet, they are proving valuable assets in special branches of work."*

Franklin County

Dr. Ernst Klein, formerly of Cologne, Germany, is now located in St. Regis Falls, having taken over the office and practice of Dr. William Gaspar there. His specialty is gynecologist surgery.

Dr. Klein has had many years of practice and has seen the greater part of the world in his former capacity as ship surgeon. He has spent considerable time in Rotterdam, Holland, where he recently made his home. He arrived in St. Regis Falls from New York City.*

Kings County

Dr. John Hubley Schall, reported to be the first Brooklyn surgeon to use oxygenated chloroform in the community when he introduced it there in 1894, was the guest of honor in Philadelphia at a dinner held by the Alumni Society of the Hahnemann Medical College of that city on March 24.

Dr. Schall, born in Philadelphia, came to Brooklyn in 1894 as house surgeon at Cumberland Hospital. He also served at the Hahnemann Hospital and Gurnsey Maternity Hospital and in 1898 was associated with Dr. William B. Van Lennip, noted Philadelphia surgeon and instructor.

In 1899, he studied at the Baden-Baden Hospital and was the first American surgeon to perform a major operation in that institution.

He was also the first to use the Billroth antiseptic treatment for extensive burns.

Dr. Schall returned to Brooklyn in 1904 as visiting surgeon at the Women's Memorial Hospital. The following year he was chief of the clinical dispensary at the Williamsburg Hospital. He was chief surgeon at Cumberland Hospital from 1914 to 1916.

He retired from hospital work in 1937.*

A drive for \$5,000 as the initial goal toward an annual budget of \$30,000 for social and welfare work

among Negroes was started at a rally of the Brooklyn Urban League-Lincoln Settlement at the Fleet Street African Methodist Episcopal Church, Brooklyn, on April 11.

Special Sessions Justice Bernard A. Kozyck, a member of the board of directors of the Brooklyn Urban League, urged all Negroes to undertake with greater zeal the solving of their own problems.

Other speakers were Lorenzo F. Davis, industrial secretary of the League in Brooklyn, and Julius A. Thomas, director of the department of industrial relations of the National Urban League. The latter emphasized as an objective the training of Negroes for both war and postwar jobs.*

Dr. J. Sturdivant Read, emeritus professor of urology and alumni trustee of the Long Island College of Medicine, urged the 88 graduates who received their Doctor of Medicine degrees from that institution on March 30 to "regard their war jobs as a complete experience rather than an interruption to their careers."

Addressing the eighty-fourth annual commencement exercises of the college at the Academy of Music, Dr. Read told the graduates, who hold reserve commissions in the Army and Navy medical corps:

"When you return you will have crowded much intensified learning and experience into your life . . . so don't think that three or five years of this sort of experience will retard you or prevent you from becoming successful practitioners in a peacetime population."

Dr. Jean Alonzo Curran, president of the college, who presented the degrees to the graduates—four of whom are women—told the class that the school was informed by the War Department that the doctor is one of the first to enter the war and always the last to be released.

"After the final gun is fired," he said, "you doctors in service will still have two to three years of experience before you as stalkers of the pestilences which are the grisly fruit of war."*

Monroe County

Two out of every 100 persons in Rochester will be found to have "hidden tuberculosis," predicted Dr. James Burns Amberson, Jr., president of the National Tuberculosis Association, who addressed the local Tuberculosis and Health Association at the twenty-fifth anniversary meeting of the Association. Doctor Amberson lauded the group's announced program for increasing its health conservation and tuberculosis prevention activities among workers in war industries. He prophesied that the program participated in by Iola Sanitarium, public health officials, school authorities and industrial physicians will successfully uncover the "hidden tuberculosis" in the Rochester area.*

Nassau County

In recognition of the work that Nassau County physicians are doing in volunteering their services at the blood donor sessions conducted by the Nassau County Red Cross chapter, a certificate of the Army-Navy E award, which the blood donor unit has won nationally, has been forwarded to the Nassau County Medical Society at its headquarters in Mineola.

At every blood donor session local physicians are in constant attendance, Dr. Richard Derby,

chairman of the Red Cross blood donor service for the county, explained. Sessions are scheduled in villages throughout the county and last five or more hours, during which doctors are present as volunteers. At most of the sessions time schedules are established so that physicians relieve each other, but at least one doctor is present at all times to conduct necessary examinations of applicants before their blood is taken.

The time schedules of the sessions show that physicians of the county are now giving the Red Cross upward of 50 hours each month in enabling the Nassau County chapter to carry on this vital war work. In many cases this has meant extra "overtime" work for the doctors to keep up with already heavy schedules.*

. . .

The county society participated in "Nassau County at War," an exposition to put the county's tremendous war production on parade and to give the people a picture of what their war bond and stamp purchases to date have bought. The exposition was held at Adelphi College, Garden City, from April 12 to April 17.*

New York County

The sixth annual campaign of the Greater New York Fund to help support 406 voluntary welfare and health agencies and hospitals will be formally launched May 3.*

Oneida County

At the March meeting of the Utica Academy of Medicine, Col. A. J. Canning spoke on "The Treatment of War Injuries." Dr. William Hale opened the discussion. Dr. John Gromann gave a "History of Hernia Operations." Discussion of his paper was opened by Dr. Frederick T. Owens.

Dinner was served in the Hotel Utica at 7:00 p.m., preceding the meeting.

Otsego County

The county society met at Homer Folks Hospital at Oneonta, on the afternoon and evening of March 24, to hear lectures by Dr. Jerome T. Syverton, associate professor of bacteriology, University of Rochester, whose subject was "Virus Diseases," and Drs. Lawrence E. Young and Paul A. Lembcke, instructors at the University, whose subject was "The Clinical and Epidemiological Aspects of Primary and Atypical Pneumonia."*

March 24 marked his forty-ninth year as a doctor for Dr. F. L. Winsor, of Laurens. A graduate of Albany Medical School and Bellevue Hospital, New York City, he has been active in his profession since March 24, 1894, for many years traveling all kinds of roads with horse and buggy.

Dr. Winsor specialized in tuberculosis and was the superintendent of the Otsego County Sanatorium. Hale and hearty, he is still on the job.*

Tioga County

The county society met for dinner and a round-table discussion of interesting cases at the Penn Wells Hotel in Elmira on March 25.*

Washington County

A talking film on "Peptic Ulcer," made at the Lahey Clinic in Boston, was shown at the quarterly meeting of the medical society of Washington County on April 13, at 9:00 p.m., in the auditorium of the Hudson Falls High School.*

Westchester County

A form of acne afflicting workers engaged in making synthetic waxes and in using the product to insulate wires and condensers is caused by irritation rather than sensitivity, Dr. Eugene F. Kelley, of Yonkers, reported at the Greater New York Safety Council's convention at the Hotel Pennsylvania in New York City on March 24.

Dr. Kelley, instructor in dermatology at Columbia University College of Physicians and Surgeons, based his statement on two years' study and treatment of the ailment.

The source of the affliction, he said, was traced to chloridiphenyl and chloronaphthalene vapors which, released from the waxes, settle upon the skin and clothing, solidify, and in time are rubbed into the follicles.

"The only certain prevention is to remove the worker from contact with the offending substances," Dr. Kelley asserted. "Workers in the same plants who are not in contact with the waxes appear to escape difficulty. Cure is affected within months, but the acne reappears upon subsequent re-exposure.

"Patch tests were said to have proved negative, indicating that contact and subsequent irritation rather than sensitivity provoke the disease."*

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
William E. Caldwell	63	Univ. & Bell.	April 1	Manhattan
Arthur I. Eccleston	69	Buffalo	March 22	Waterport
Raymond W. Graham	51	N.Y. Hom.	April 4	Syracuse
H. Lynn Halbert	52	P. & S., N.Y.	April 6	Tompkinsville
George L. Kessler	74	N.Y. Univ.	April 3	Brooklyn
William N. Miller	72	N.Y. Univ.	March 23	Croton-on-Hudson
Avedis S. Nakashian	75	Beirut	March 29	Manhattan
Foster H. Platt	50	Vermont	April 4	Brooklyn
George W. Smith	42	Dalhousie	March 21	Niagara Falls
John M. Spetnagel	67	Univ. & Bell.	April 8	Bronx
John E. Walsh	82	Bellevue	March 21	Northport

Hospital News

National Hospital Day to Stress Recruitment of Nurses

OWING to the war, the yearly observance of the birthday of Florence Nightingale, which in the past has featured events designed to get people inside hospitals, has given way to a functional program.

R. F. Cahalane, chairman of the A.H.A. Council on Public Education, stated recently that "hospitals haven't the personnel or time to devote to the usual observance of the day. But if we can't get the people to the hospitals, we can take the hospitals to the people through radio and newspapers. May 12 can also serve as a peg on which to hang student nurse and nurse aides recruitment programs. Accordingly, the council has made contact with the O.W.I., the National Nursing Council for War Service, and other groups, and the plans as developed emphasize hospital personnel shortages."

The American Hospital Association upon request will provide a package of posters, folders, and press releases for the publicizing of the day.

Some hospitals plan to develop elaborate programs. Donald Rosenberger, chairman of the National Hospital Day Committee for Pennsylvania, has arranged a comprehensive program for the hospitals of Erie.

Every hospital in the city will be visited by groups of high-school pupils, each of whom will write a report of her visit and the best reports will be printed in the newspapers and broadcast over local stations. Window displays have been arranged through the cooperation of the local stores, hospital supply houses, and the hospitals.

C. Rufus Rorem, of the American Hospital Association, will speak over an Erie radio station into every schoolroom in Erie. His subject will be nurse recruitment. He will also address the joint women's auxiliaries at a tea. Later in the day he will speak over WERC on an eastern states' hookup and is scheduled to lead a forum discussion over WLEU in the evening.—*The Modern Hospital*

Newsy Notes

The Brooklyn Surgical Society gave a dinner to the doctors of the United States Naval Hospital at the Bossert Hotel on April 1. The dinner was followed by discussion on medical subjects.

Among the speakers were Capt. Gardiner Robertson, of the Brooklyn Surgical Society, and Dr. Herbert Wikle, of the United States Naval Hospital, who made informal speeches.*

. . .

Doctors and nurses at Queens General Hospital, Jamaica, are tending a Victory Garden for the Hospital. The only luxury the gardeners permit themselves, according to the *Jamaica Press*, is a motor-drawn plow, for their garden is far larger than the average.

. . .

Albany Hospital's drive for men volunteers to relieve a critical male help shortage has started with an enrollment of more than 90.

Approximately 250 men are needed to ride the ambulance, serve as orderlies, help transport patients, and countless other duties, Dr. R. S. Cunningham, chief administrator, announced.

The men volunteers, wearing the blue hospital jackets which will be their uniforms, will begin work at the hospital after receiving the first four hours of a ten-hour course given by Miss Alice T. Dyer, R.N., of the nursing administrative staff, Miss Ruby Butler, R.N., and Miss Ruth Gokey, R.N.

"With a staff of 300 men volunteers, we eventually can have a twenty-four-hour volunteer staff at the hospital," Dr. Cunningham said.

"We have more than 300 women volunteers who are doing an excellent job during day and evening hours."

Men volunteers will be asked to give at least three hours' service a week at the hospital.

Volunteers may register at the hospital volunteer office either in person or by telephone.*

Texas hospitals have undertaken a "help-your-neighbor" program of exchanging or selling various items of equipment. Reports of the council on construction and plant operation of the Texas Hospital Association indicate that the program has proved quite successful.

In order to obtain data on available equipment, a check list of general items utilized in all hospital departmental functions involving equipment that is under priority regulations was sent to all Texas hospitals and clinics listed by the American Medical Association. When each institution had checked items that it was willing to exchange or sell, the list was returned to the council chairman for tabulation.

After the tabulation had been completed, the list of available articles, including the name and location of the hospitals that possessed them, was distributed to all institutions that had received the original list of equipment.

Proof of the practicality of the program was evidenced at the annual meeting of the Association, at which groups of hospital administrators got together over the lists to consummate deals.—*The Modern Hospital*

. . .

An appeal for 500 volunteers to serve as Red Cross Gray Ladies in six city hospitals has been made by Maj. Gen. Robert C. Davis, executive director of the New York Chapter of the Red Cross, at the request of city officials. The Gray Ladies are the gray-uniformed volunteers of the chapter's hospital and recreation service, enrolled and trained by the Red Cross.

Additional Gray Ladies are needed urgently because of the shortage of nurses and other personnel.

Three hundred and fifty Gray Ladies of the New York Chapter are now serving without pay in four government and twenty civilian hospitals in Manhattan and the Bronx, where they carry on work other than that of nurses and nurse's aides. The hospitals for which the city's representatives have asked more Gray Ladies are Bellevue, Gouverneur, Harlem, Fordham, Morrisania, and Metropolitan.

[Continued on page 882]

* Asterisk indicates that item is from local newspaper.

THE RISING CURVE OF PEPTIC ULCER IN WAR

"Peptic Ulcer ranks high as a cause of disability for military service. It . . . leads all other digestive diseases as a cause for discharge from the Regular Army."

Kantor, J. L.: Digestive Disease and Military Service, Jnl. A. M. A., Sept. 26, 1942.

THE increased incidence of peptic ulcer among the armed forces, defense workers and civilians today confronts medicine as a major problem.

Of the various types of therapy used to control this problem none has proved itself more valuable than CREAMALIN,

brand of aluminum hydroxide gel.

CREAMALIN, the first aluminum hydroxide gel to be made available to physicians, was also the first to be Council-accepted. CREAMALIN contains approximately 5.5% aluminum hydroxide.

Therapeutic Effects of CREAMALIN

- Pronounced antacid action of 12 times its volume of N/10 HCl in less than 30 minutes (Toepfer's reagent)
- Prolonged action in contrast to fleeting effect of alkalies
- Non-alkaline; non-absorbable; non-toxic
- No acid rebound; no danger of alkalosis
- Prompt and continuous pain relief in uncomplicated cases
- Rapid healing when used with regular ulcer regimen
- Mildly astringent; may reduce digestive action, thus favor clot formation
- Demulcent; gelatinous consistency affords protective coating to ulcer



Modern non-alkaline therapy for peptic ulcer and gastric hyperacidity

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WINTHROP CHEMICAL COMPANY, INC., SUCCESSOR

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**OPTIMUM NUTRITION
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**MINIMUM TIME
FOR DOCTOR...**



with this complete liquid infant formula!

BIOLAC SUPPLIES milk proteins, milk minerals, iron, and vitamins A, B₁, B₂ and D in amounts which equal or exceed recognized requirements for infants. Thus with the sole exception of vitamin C, Biolac provides *complete* nutrition for the bottle-fed baby.

Biolac is a real timesaver for overworked doctors, too!
No carbohydrate or other extra formula ingredients to calculate!

Also, with Biolac there is less chance of upsets due to errors in preparing formulas. Less chance of formula contamination, too, because Biolac requires only simple dilution with boiled water, as you prescribe.

NO LACK IN BIOLAC

Borden's complete infant formula

● Biolac is prepared from whole milk, skim milk, carbohydrates—Vitamin B₁, concentrate of Vitamins A and D from cod liver oil, and ferric citrate. It is evaporated,

homogenized, and sterilized. For professional information, write Borden's Prescription Products Division, 350 Madison Avenue, New York, New York.

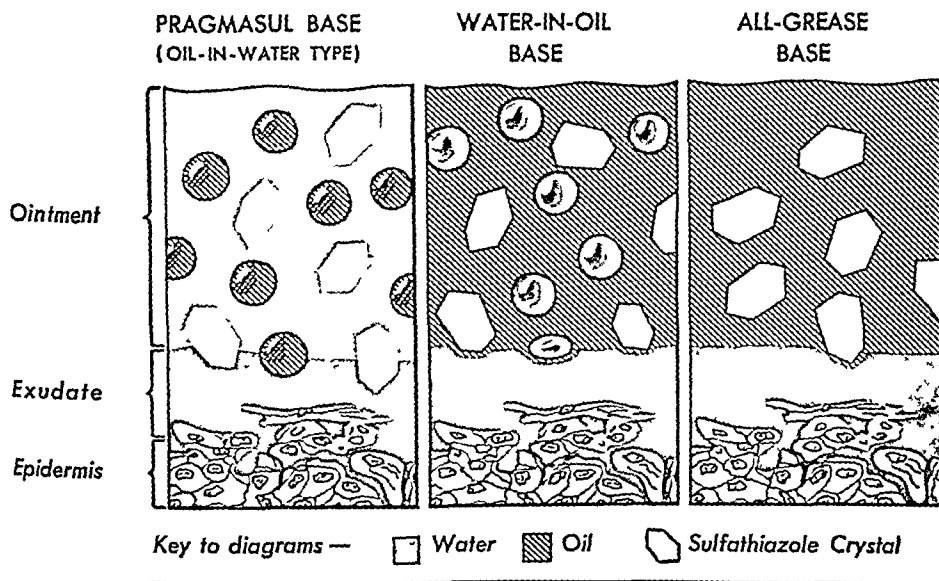


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In PRAGMASUL the ointment base is an oil-in-water type emulsion, which ensures intimate and prolonged contact of the 'Microform'* sulfathiazole crystals with the affected tissue.

The important difference between the Pragmasul base and the two other types of ointment bases most commonly employed is strikingly illustrated below.



NOTE that in Pragmasul the oil globules and the 'Microform' sulfathiazole crystals are suspended in the continuous aqueous phase.

NOTE, also, the absence of interfacial tension between the aqueous serous exudate and the water-phase of the Pragmasul base. On the other hand, with the all-grease and

water-in-oil emulsion bases, interfacial tension is inevitable at the apposition of the mutually incompatible oil and exudate.

*Pragmasul contains 'Microform' sulfathiazole, 5%. 'Microform' is S.K.F.'s trademark for micro crystals of the sulfonamides — in the case of sulfathiazole, approximately 1/1000 the mass of ordinary commercial crystals.

SMITH, KLINE & FRENCH LABORATORIES
PHILADELPHIA, PA.

[Continued from page 878]

Volunteers must be women between the ages of 21 and 50 who are American citizens, physically fit, and of neat, pleasant appearance. They must have free time during the day to take training courses, and must be willing to give at least one full day or two half-days a week to the work.

Their duties are varied. They work in clinics, receiving and assisting patients and keeping records. They help in children's wards, reading, playing games, and teaching simple handicrafts. They assist the social service worker in interviewing patients.*

The Associated Hospital Service of New York, in its financial statement for 1942 filed with the State Department of Insurance, showed at the year-end total assets of \$10,120,944, including \$8,299,091 in United States bonds. Cash amounted to \$1,564,011.

The report showed a surplus of \$4,498,329 assets over liabilities. Among the liabilities is a reserve fund of \$2,500,000 for epidemics and other contingencies. This is in addition to the normal reserve for unpaid hospital claims that amounts to \$1,550,000.

Louis H. Pink, president, said that enrollment figures for last year showed 148,924 new subscribers had joined the organization's 3-cents-a-day plan for hospital care. Although many subscribers have moved out of town to take positions in war industries, the total enrollment is more than 1,300,000.

Mr. Pink said that the Associated Hospital Service paid hospitals last year \$7,363,278 for the care of 117,804 subscribers. From the inception of the 3-cents-a-day plan in 1935 through last year, it has paid hospitals \$37,720,173 for the care of 600,000 subscribers.

A plaque honoring 125 doctors, interns, nurses, and staff members of Mineola's Meadowbrook Hospital who are now serving in the armed forces was unveiled on April 1 by County Executive J. Russel Sprague in the presence of more than 100 persons. The ceremony was conducted in the entrance foyer of the hospital's main building.

Tioga County General Hospital in Waverly has been presented with a resuscitator and incubator by the Waverly Lions Club.*

A rehabilitation clinic has been organized at Stuyvesant Polyclinic by H. I. Biegeleisen, M.D., to rehabilitate rejected applicants for military service. Conditions such as varicose veins, phlebitis, lymphedema, varicocele, hydrocele, hemorrhoids, pilonidal cyst, bursitis, and hernia will be treated by sclerotherapy.

A vast construction plan contemplating the replacement of virtually every building at the Binghamton State Hospital at an estimated cost of approximately \$15,000,000 is included in New York State's postwar planning program.

Details of the project are being developed by the

Among those present were George L. Hubbell, chairman of the board of managers at Meadowbrook, Superintendent A. J. McRae, Lulu B. Payne, supervisor of nurses, and Medical Examiner Theodore J. Curphey.*

The 52d General Hospital, which is the Syracuse University unit, is settled somewhere in England in the hospital that its members believe will be their station for the duration of the war, and members of the staff are becoming accustomed to life in England, according to letters written by Maj. Floyd R. Parker. The letters are published in the April issue of the *Bulletin* of the Onondaga County Medical Society and the Syracuse Academy of Medicine.

Major Parker wrote the "Around the Town" column for the *Bulletin* in peacetime and his letters are filled with observations of interest to all families of members of the hospital staff.

The grand opening of the hospital took place with much local ceremony, Major Parker said, and to the accompaniment of many clicking cameras, but the pictures will not be shown until the hospital unit returns home.*

Substantial progress in electric shock treatment of psychiatric patients at New York Hospital, Westchester Division, during 1942 was revealed in the annual report of Dr. Clarence O. Cheney, medical director. Fifty per cent of those given shock treatment were considered either cured or sufficiently improved to be released, the report states.*

Volunteer Nurses' Aides trained under the joint program of the Office of Civilian Defense and the American Red Cross may now be used in Army hospitals, according to announcements from the two agencies.

The Surgeon General of the Army has requested this service, and the sponsoring agencies have recommended that Nurses' Aides be assigned to Army general or station hospitals on request of the Commanding Officer. The aides must receive their training in civilian hospitals as heretofore.

Improvements

Division of Architecture of the State Department of Public Works.

Engineering crews of the Binghamton district of the State Department have started to survey the hospital grounds and take subsoil tests which will play an important part in the location of new buildings.*

Alterations of the east wing of the Geneva General Hospital, in Geneva, to provide space for additional beds, are rapidly nearing completion.

On April 1, Saugerties was introduced to a new sanitarium, Dale's Sanitarium, which has a fully modernized hospital equipment and will accommodate about 40 patients. The sanitarium will be under the management and supervision of Mrs. Ruth Dale, registered nurse, who has conducted Dale's Nursing Home for a number of years.*

Woman's Auxiliary

To the Medical Society of the State of New York

On to Buffalo!

GREETINGS and a hearty welcome to Buffalo, the 1943 Convention City. The State Convention of the Woman's Auxiliary to the Medical Society of the State of New York will be held from May 2-6, inclusive, at the Hotel Statler. All doctors' wives, whether members of the Auxiliary or not, are cordially invited to attend all sessions of the Auxiliary and all social functions. It has been impossible to make definite plans too far in advance, but all is well in hand now and we will give you the best convention we can, with the hope that all of you will join us. There will be sufficient accommodations for all, and because of the times, everything will be most informal. There will be no need for long dinner dresses, so your luggage will be minimum.

The entire Convention Committee will be on hand, beginning Sunday, May 2, to welcome all who arrive early.

With best wishes for a successful convention, in which each of you has an important part, and again welcoming you to Buffalo, I am,

Most sincerely,

MAXINE C. JOHNSON
1943 Convention Chairman

To Mrs. J. Emerson Noll, our retiring president, I speak for all your committees. We have enjoyed working with you and serving our state and county organizations. We leave this thought for you:

Life brings many, many changes,

As we live from year to year,

But there certainly is one thing

That will never disappear!

So enduring is our friendship

That, whatever else may end,

We shall have the joy of knowing

That you always are our friend.

To our president-elect, Mrs. F. Leslie Sullivan, we wish you and your committees the best of luck and cooperation at all times. These few words we bring to you:

And may life always bring to you

The very best of Everything.

Congratulations to the officers of 1943-1944.

Meet you all in Buffalo, May 2-6.

JUNE M. MOREY
Publicity Chairman

County News

Columbia County. The monthly meeting of the woman's auxiliary was held in the afternoon at the Nurses' Home of the Hudson City Hospital. A letter of thanks was read from the Hudson City Hospital for the auxiliary's gift of \$25 to the Student Nurses' Fund, and one from the Physicians' Home in New York City for the auxiliary's gift of \$10. Mrs. John L. Edwards, of Hudson, was appointed chairman of the nominating committee.

Mrs. H. G. Henry, of Germantown, will represent the auxiliary at the Annual Convention of the Woman's Auxiliary to the Medical Society of New York State, which will be held at Buffalo on May 2-6. Mrs. H. J. Noerling, of Valatie, and Mrs. Everett A. Jacobs, of Hudson, will attend as delegates from the local auxiliary, with Mrs. Edwards as alternate.

Saratoga County. Mrs. Alfred Madden, of Albany, our state legislative chairman, spoke on medical legislation at the meeting held Tuesday, April 6, at 8 p.m. Mrs. G. Scott Towne, of Saratoga Springs, was hostess. Mrs. Edward J. Callahan, of Schuylerville, reported for Mrs. Thomas Bullard, program chairman.

Herkimer County. Members of the county auxiliary held their April meeting at the Dyett Tearoom in Ilion.

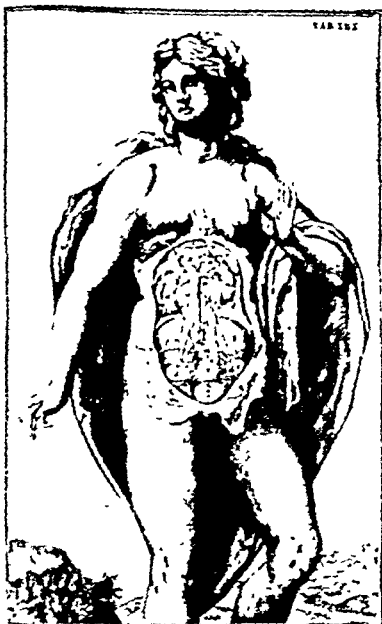
Mrs. Byron G. Schults, of Herkimer, was elected president. Committees for the year will be announced later. Mrs. Helen Buckbee gave a report of the Board meeting in Albany, at which nineteen members were present. The next meeting will be held in June.

PEPYS LEARNS ABOUT ORANGE JUICE

"March 9th, 1669. With my wife and Bab. and Betty Pepys and W. Hewer, whom I carried all this day with me, to my cozen Stradwick's, where I have not been ever since my brother Tom died, there being some difference between my father and them, upon the account of my cozen Scott; and I was glad of this opportunity of seeing them, they being good and substantial people, and kind, and here, which I never did before, I drank a glass, of a pint, I be-

lieve, at one draught, of the juice of oranges, of whose peel they make comfits; and here they drink the juice as wine with sugar; and it is a very fine drink; but, it being new, I was doubtful whether it might not do me hurt.

"They are very good people. So home, and then after signing my letters, my eyes being bad, to supper and to bed." (Samuel Pepy's Diary.)—Reprinted in *Nutrition Reviews*.



The art of anatomic illustration entered a new epoch upon the publication of the *Tabulae Anatomicae* of Giulio Casserio (Venice, 1627). This female figure is one of Casserio's most beautiful copperplates.



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THEELIN AQUEOUS SUSPENSION provides the same pure, natural crystalline estrogen as Theelin in Oil, and the same effective clinical results may be expected in the treatment of the menopausal syndrome and other conditions due to diminishing estrogenic secretion. Theelin Aqueous Suspension is administered intramuscularly. Normal saline solution—no suspending agent—is used in preparing this product and the ampoule need only be shaken gently before the preparation is drawn into the syringe.

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1-cc. ampoules in strengths up to 1 mg. (10,000 I.U.) of Theelin per cc.



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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N. Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selections for review will be based on merit and interest to our readers.

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Medical Clinics of North America. Vol. 27, No. 1, January, 1943. (Chicago Number.) Philadelphia, W. B. Saunders Company, 1943. Published bimonthly (six numbers a year). Cloth, \$16.00 net; Paper, \$12.00 net.

Outline of Psychiatric Case Study. A Practical Handbook. By Paul W. Preu, M.D. Second Edition. Duodecimo of 279 pages. New York, Paul B. Hoeber, Inc., 1943. Cloth, \$2.75.

Understand Your Ulcer. By Burrill B. Crohn, M.D. Octavo of 199 pages, illustrated. New York, Sheridan House, 1943. Cloth, \$2.50.

A Surgeon's Flight to Rebuild Men. An Autobiography by Fred H. Albee, M.D. Octavo of 349 pages. New York, E. P. Dutton & Company, 1943. Cloth, \$3.50.

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The usefulness of this text to the practicing physician would probably have been enhanced by inclusion, in the sections on therapy, of information as to the usual dosages of the drugs exhibited. In all other respects the book should admirably fulfill the purposes for which it was written.

ELBERTON J. TIFFANY

The Pharmacopoeia of the United States—America. (United States Pharmacopoeia.) Twelfth Revision (U. S. P. XII). By authority of United States Pharmacopoeial Convention. Prepared by the Committee of Revision and Published by the Board of Trustees. Octavo of 880 pages. Easton, Pa., Mack Printing Company, 1943. Cloth, \$7.50.

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An additional 153 articles were included in U. S. P. XII, which also has 17 articles previously published.

[Continued on page 888]

and recent history into small space, terminating very properly with a real tribute to two prominent surgeons, Francis Bacon and William H. Carmalt, bringing Dr. Carmalt's contribution down to our own days.

Connecticut can lay claim to a rich surgical heritage through the fact that born beneath the elms of Connecticut were such prominent surgeons as Charles Peck, Joseph Blake, Nathan Smith, Harvey Cushing, William Halsted, and John A. Hartwell.

Many other separate topics are covered, some with much of the colonial about them and all bearing the impress of personal authorship by doctors proud of their state and of their own medical forebears.

This little volume will be found well worth perusal in more than idle moments by those seeking a purely academic rendering of the facts concerning the heritage of Connecticut medicine.

CASSIUS H. WATSON

Synopsis of Pathology. By W. A. D. Anderson, M.D. Duodecimo of 661 pages, illustrated. St. Louis, C. V. Mosby Company, 1942. Cloth, \$6.00.

This handy volume presents pathology in compact and condensed form. It is up to date and contains the main features in pathology with which every medical student and clinician should be familiar.

The first portion of the book is devoted to general pathology, including chapters describing the virus and rickettsial diseases. There is also a chapter dealing with vitamin deficiencies. The rest of the book describes the pathology in diseases of the various systems. The text is very well illustrated, containing a number of colored plates, and lends itself to easy reading.

E. H. NIMISH

Textbook of Clinical Parasitology Including Laboratory Identification and Technic. By David L. Belding, M.D. Quarto of 888 pages, illustrated. New York, D. Appleton-Century Company, 1942. Cloth, \$8.50.

With so many of our physicians in the armed forces, we think no book could be more welcome to the medical profession than one on parasitology.

This work is concise, the morphologic descriptions are excellent, and the grouping and tabulations are very well done. The technical methods in diagnosis will be of great assistance to many of our colleagues who are specializing in parasitic diseases.

We can highly recommend this volume, with its many illustrations, to all members of the medical profession.

M. J. FEIN

Changes in the Knee Joint at Various Ages With Particular Reference to the Nature and Development of Degenerative Joint Disease. By Granville A. Bennett, M.D., Hans Waine, M.D., and Walter Bauer, M.D. Quarto of 97 pages, with 31 plates. New York, The Commonwealth Fund, 1942. Cloth, \$2.50.

If a modern student of arthritis were to make the statement that in every subject over the age of 15 some degenerative changes in the knee were observable, he would find no detailed pathologic studies to support this observation. Yet surgeons who have had reason to explore the knee joint in patients in the early decades of life have often been surprised at the actual amount of pathologic change in the cartilaginous surfaces of these joints. To these

[Continued on page 890]



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[Continued from page 886]

added to the U. S. P. XI by means of supplements. Eighty-six articles listed in the U. S. P. XI were deleted from the U. S. P. XII. A radical departure from previous revisions was the inclusion of many drugs in tablet form. Whereas the U. S. P. XI listed only 3 tablets, the U. S. P. XII lists 47.

An interesting feature is the addition of preparations for parenteral use, listed under the heading "Injections." These include 20 preparations, a few of which are caffeine and sodium benzoate, dextrose, dextrose and sodium chloride, digitalis, epinephrine hydrochloride, mercuric salicylate, mercurophylline, mersalyl and theophylline, theophylline ethylenediamine, ouabain, strophanthin, and picrotoxin.

With the inclusion of so many useful drugs, especially in the convenient forms such as capsules, tablets, and injections, U. S. P. XII should supply the needs of physicians for scientific and rational prescribing.

CHARLES SOLOMON

Doctors of the Mind. The Story of Psychiatry. By Marie B. Ray. Octavo of 335 pages. Boston, Little, Brown and Company, 1942. Cloth, \$3.00.

A most entertaining story, this *Doctors of the Mind*. The author has taken the trouble to lay before the reader the trials and tribulations of men of science, their problems and their manner of attacking them, their close scrutiny of their work at the drawing of their conclusions. Here we see the birth of ideas, their replacement by others if the former are found untenable. All this is told in dramatic manner which lends charm to the book. Lay persons especially will find the story of psychiatry most interesting. The author is to be congratulated for a very able presentation of her subject.

JOSEPH SMITH

The Heritage of Connecticut Medicine. Octavo of 223 pages. New Haven Connecticut State Medical Society, 1942. Cloth, \$3.00.

This interesting volume is a compilation of important medical developments over the years as conceived by a conclave of Connecticut physicians. The prompting of this endeavor is a most worthy one and should be copied by other states, for in varied commentaries of this sort there can be compiled an unprejudiced and, at the same time, democratic evaluation of professional brethren of the long ago. The editor deserves a vote of thanks for this splendid compilation.

"Four years after Connecticut joined the United States, in 1788, the Connecticut State Medical Society held its first meeting." With this as a pivotal point the details connected with the development of the Yale Medical School are most interestingly told.

The outstanding figure of the early years, and in fact for all time, has been William Beaumont, and Chapter Nine, by Dr. Russell Chittenden, is a splendid summary of his activities.

In like manner, Dr. Henry Erving describes the part played by Dr. Horace Wells, of Hartford, in the initial discovery of anesthesia.

Dr. Charles Bartlett summarizes in a splendid story the events that led up to the discovery and elimination of the diploma mill.

One of the most interesting sections is the contribution by Dr. Charles Burlingame covering the details of the life history of The Hartford Neuro-Psychiatric Institute, known over the years as the Hartford Retreat.

"Connecticut Surgery," by Dr. Samuel Harvey, crowds much pre-Revolutionary, Revolutionary,

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This edition gives special attention to public health problems relating to the prevention of infectious diseases. It gives an up-to-date account of cosmopolitan diseases that may be encountered in warm countries and of diseases of tropical origin that may become endemic in temperate climates. A number of useful maps recently prepared by the League of Nations showing the geographical distribution of diseases are included. 398 Illus. 1826 Pages Two Volumes \$21.00.

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[Continued from page 839]

surgeons and students of arthritis the excellent correlation of x-rays, photographs, and microscopic studies found in this volume will prove a most welcome approach to a concept of pathogenesis regarding hypertrophic arthritis (also commonly known as osteoarthritis, deformative arthritis, and arthritis deformans).

The authors, after completing an exhaustive study of the available literature on arthritis and physiopathology of the knee, decided to make a detailed postmortem study of 63 knee joints of subjects ranging in age from one month to 90 years. None of the patients from whom these limbs were amputated or autopsied had presented any symptomatology related to joint diseases. In this way the authors have made one of the first organized attempts at creating a norm for future studies.

This new approach in the study of so universal and devastating a disease as arthritis is especially enlightening in that it makes careful use of histologic studies to prove that positive findings become apparent earlier in life than many heretofore have assumed because of an optimistic reliance upon x-ray studies alone. This latter fact cannot be emphasized too strongly.

We most enthusiastically recommend that students of arthritis make a careful study of the photographic histologic and roentgenographic reproductions contained in this volume.

FOSTER J. DATRI

The Surgery of Pancreatic Tumors. By Alexander Brunschwig, M.D. Quarto of 421 pages, illustrated. St. Louis, C. V. Mosby Company, 1942. Cloth, \$7.50.

This volume is probably the only one of its kind in existence today. It represents a tremendous amount of work on the part of the author, who has covered this surgically limited field in an exceptionally orderly and complete manner, including the history, anatomy, embryology, experimental research, diagnosis, prognosis, and treatment of every type of tumor found in the pancreas. The excellent illustrations, along with the clear-cut detailed description of the surgical treatment of various tumors in the pancreas, should stimulate more surgeons to neglected pathology.

we are sure, as an authoritative text, and the author deserves every praise for his contribution. Although this book is of primary interest to the surgeon, it should be of equal interest to the internist and the research worker.

HERBERT T. WIKLE

The Essentials of Emergency Treatment. Octavo of 144 pages. Hartford, 54 Church Street, Connecticut State Medical Journal, 1942. Cloth, \$2.00.

This book is a compilation of articles by 19 physicians and surgeons, most of them from the State of Connecticut. There are few illustrations—five or six—with a chapter on the organization and function of the emergency medical service in Connecticut.

Each of the various authors discusses in a brief chapter subjects in which he has been especially prepared. The volume is sponsored by the Connecticut State Medical Journal. Its purpose is to prepare physicians for any emergency which may arise as a result of bombing or as a result of injuries received on the highways or in large factories where, owing to the complicated machinery, accidents and injuries frequently occur.

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"STANDING ROOM" MORE COSTLY

The effects of the standing position of the human body upon efficiency and resistance to fatigue and ailment was the point of an investigation made recently at the Teachers College of Columbia University. The findings of this special research, conducted by Dr. Harriet Graham McCormick, instructor in the Department of Health and Physical Education at the College, have been described in a treatise, "The Metabolic Cost of Maintaining Standing Position," published by Columbia University.

According to the results of the investigation, maintenance of a standing posture involves the expenditure of an average of 18 per cent more of the body's energy than a sitting or lying down position. Viewed as to the effect on the productive power of millions of men and women engaged in war production the information may have a great significance. Slouching, however, appeared a natural method of reducing the expenditure of body energy, although the investigator does not recommend that men and women should always assume a lax, slouchy position. A more practical position might often be the one involving the expenditure of considerable body energy to maintain.

To arrive at the conclusions, Dr. McCormick measured the metabolic rate in a number of grown-up persons. When a large group of women were tested in a standing position, the metabolism increased from 5.7 per cent to 36.8 per cent as compared with the basal metabolism of this test group. In working, however, the ideal position is the one that is consistent with the least expense of energy required to perform a particular task most efficiently.

To minimize the expenditure of energy where workers may have to stand at long periods, it is suggested that some kind of a leaning-post or support be installed for employees in factories and shops.

This would be a contribution to efficiency.

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Yet for years now, whenever Doc's life insurance man has come around, Doc's brushed him aside. "Too busy!" he says. Yes—too busy looking after everybody else's family to give much thought to his own. . . in the future that seems so far away. . .

Guess Doc doesn't appreciate that saying, "The future belongs to those who prepare for it." Funny, isn't it? There seems to be a little of Doctor Larabee in all of us. It's just so easy for us to say, "Too busy!" or "Maybe tomorrow". . . when tomorrow may be too late.—*The Prudential*

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RATIONING'S DIETARY EFFECTS

M. S. Rukeyser, *Journal-American* columnist, recently took a long look at the least considered side of rationing, and proceeded to tell his readers that—"Apparently for the duration we are to be nourished on statistical averages."

Rukeyser calls rationing an equalitarian system based on a belief that what is sauce for the goose is sauce for the gander. While the system has merit for its present use and is doubtless needed under abnormal conditions, he sees danger ahead if it is continued after victory, for it runs counter to the known principles of biology. "Contrary to equal rationing based on statistical averages, the caloric needs of the individual vary according to size, amount of work done, age and other factors," he comments.

"Yet for convenience, ration tickets assume not only that all men are created equal but that their needs for food are precisely the same."

As Rukeyser views it, we Americans will adjust ourselves to the extension of point rationing even if we dissent from some of the theoretical assumptions on which bureaucrats base their policies. Yet, he remarked, the "freeze" on butter gave satisfaction to "some of us oldsters" who had accumulated reserves of fats, etc., around the

waist. Although this kind of hoarding was done in direct violation of the best medical advice, such biological corporations will now prove of some value. At least the conscientious patriot will have an opportunity to cut down his demand where and when the supply of butter fats and their equivalent is limited. "And as such patriots draw on their excess reserves around the girth, the war as an indirect benefit will be aiding the slenderizing which had long been neglected."

"In rationing," the writer observes, "the O.P.A. will provide extra supplies for invalids, infants and others who can adduce evidence from physicians that they need more. As an offset to this, it would seem in order to cut down a little on the rations of the overstuffed and overfed—at least until they approached figures making for optimum health . . .

"As for theorists who are dreaming of continuing such machinery for 'economic planning' after the war, it is likely that after victory the public will be tired of being bossed by bureaucrats and will be yearning nostalgically for their days of freedom. It will be in accord with human nature to want to reverse the policies of regimentation after the war need has passed."

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Eddie Cantor and Ben Bernie phoned for permission to read the ad on their broadcasts. Kate Smith recommended "The Kid" to her millions of radio listeners. Travel Agents wrote to say the ad made it easier to sell "best available" Pullman space.

Just "The Kid in Upper Four," but it could have been anyone's boy—or husband—or dad. Reprints suitable for framing are available for the asking. Just write to the Public Relations Department, New Haven Railroad, South Station, Boston.

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of the Medical Society of the State of New York

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Secretary

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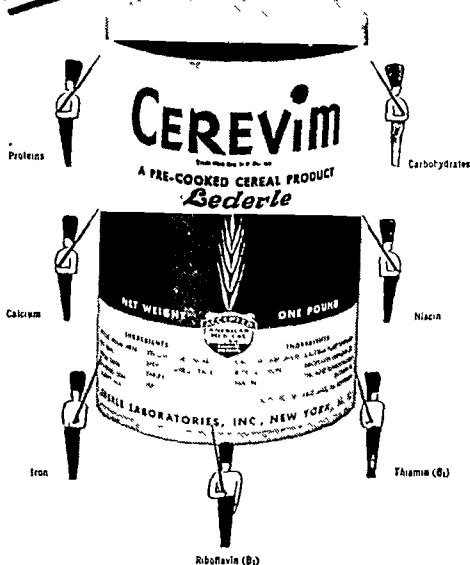
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6 heaping tablespoons (½ cupful) equals 1 ounce	

*The needs for copper and calcium pantothenate in human nutrition have not been established.

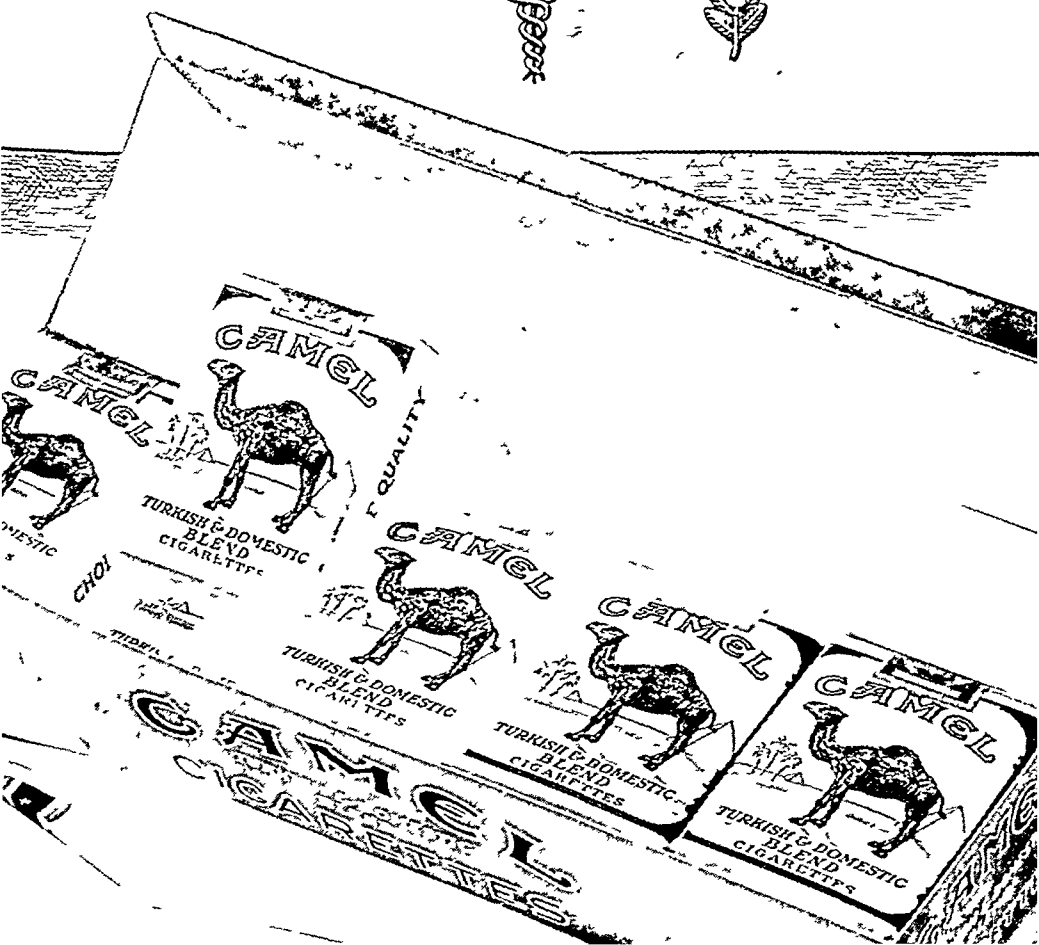
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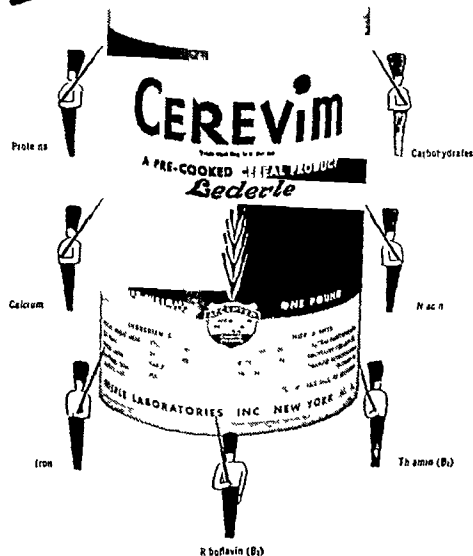


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NEW YORK STATE JOURNAL OF MEDICINE

VOLUME 43

MAY 15, 1943

NUMBER 10

Published twice a month by the MEDICAL SOCIETY OF THE STATE OF NEW YORK. Publication Office: 20TH AND NORTHAMPTON STS., EASTON, PA. Editorial and Circulation Office: 292 MADISON AVE., NEW YORK, N.Y. Change of Address: NOTICE SHOULD STATE WHETHER OR NOT CHANGE IS PERMANENT AND SHOULD INCLUDE THE OLD ADDRESS. Fifty cents per copy—\$5.00 per year. Entered as second-class matter March 13, 1939, at the Post Office at Easton, Pa., under the Act of August 24, 1912.

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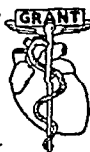
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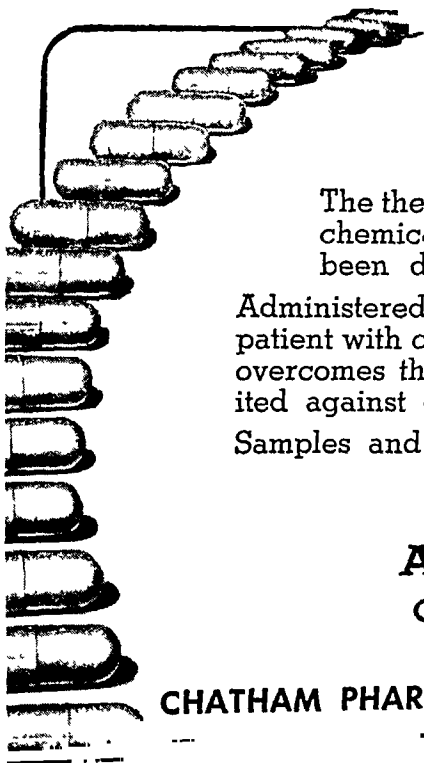
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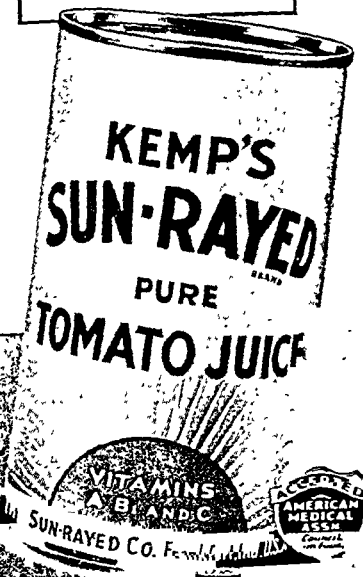
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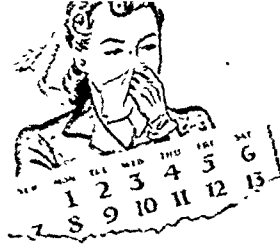
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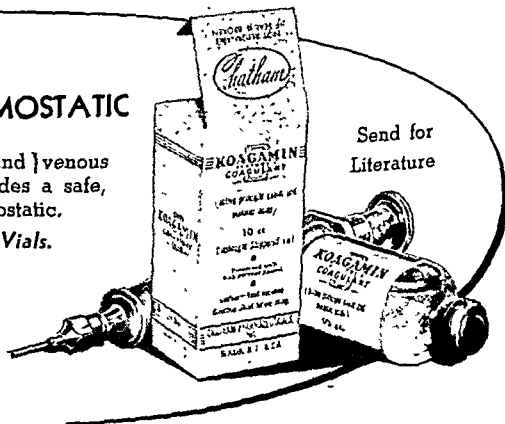
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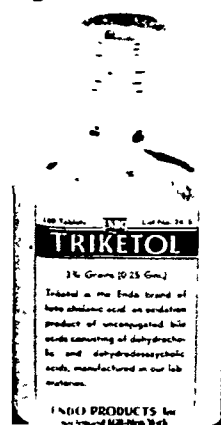
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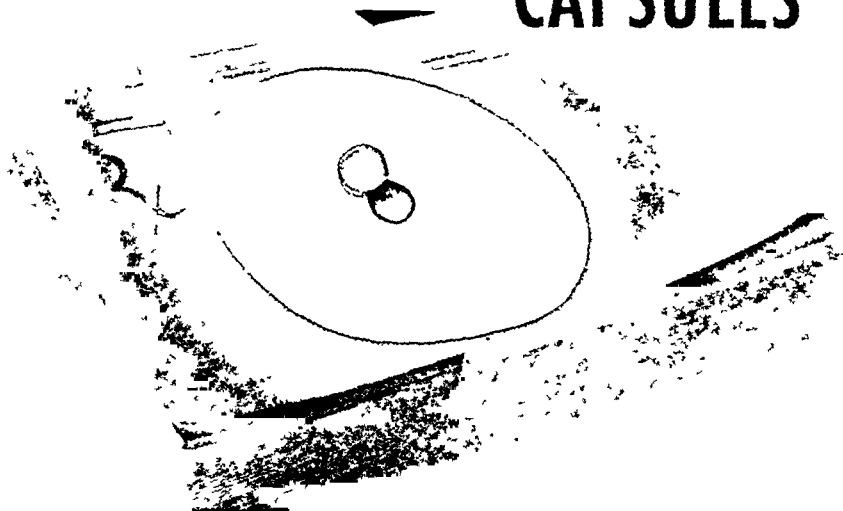
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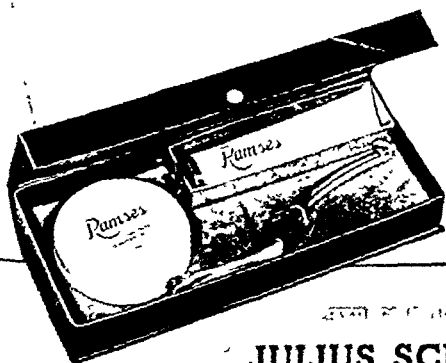


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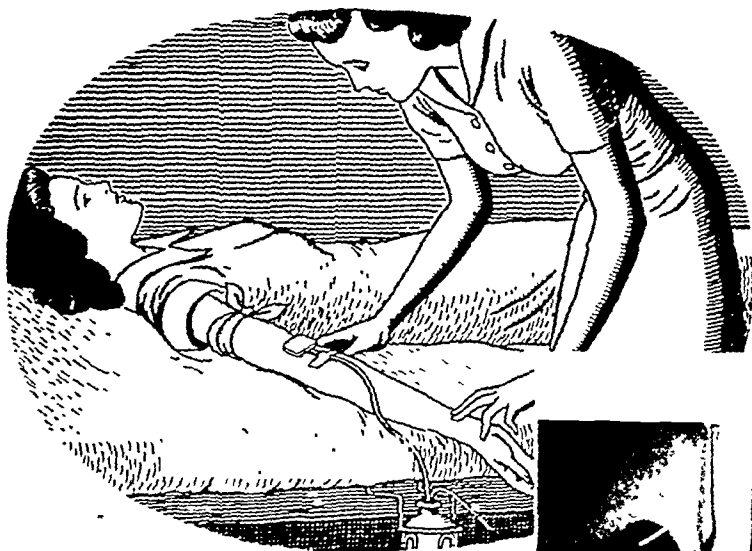
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NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 43

MAY 15, 1943

NUMBER 10

Editorial

Group Malpractice Insurance

This year marks the twenty-second anniversary of the Group Malpractice Insurance Plan of the Medical Society of the State of New York. Since 1921, when the plan was adopted, over 3,500 suits and claims have been closed by the companies operating under it, with the assistance of the legal counsel of the Society, and all liabilities have been fully discharged.

It may be said that progress is being made toward bringing about an improved experience which may ultimately lead to the benefit of lower rates for this kind of protection. Mr. Louis H. Pink, speaking before the Medical Society of the County of Kings, recently said in part: "Nothing can substitute for experience; sound insurance underwriting is based upon a sufficient accumula-

tion of experience and accurate interpretation of its lessons; the price of experience is time, and it can never be had at cut rates." As recent Superintendent of Insurance of the State of New York, Mr. Pink should know.

Experience is being slowly accumulated under the Group Plan of the Society, and those interested in the historical development of the plan under the auspices of the Society will find in this issue* such a résumé, together with a discussion of the principles and practice under which it is operated. We hope our membership will better acquaint itself with this important protective function of the Society, now in its twenty-second year of successful operation.

* See page 925.

Medical Student Training

A program of premedical and medical education for thousands of soldiers and sailors conducted by the Army and Navy is expected to be in full operation by June, 1943. The Army plans to train about 14,000 young men and the Navy about 4,750.

To maintain a continuous production of 4,100 medical officers every nine months, fifteen months are scheduled for premedical training, followed by the compressed three-year medical course now in operation, with a following year of internship. Sixty-three months from larva to leech. The students

will be uniformed, will be under military discipline, and will receive pay, allowances, and equipment from the government. Certainly this is an interesting experiment in medical education to be closely watched for what lessons it may teach.

Says Medical Economics:

"A picture of what Army-style premedical education may be like was painted in a recent address by Brigadier General Joe N. Dalton:

"Soldiers will be under the direction of a commandant who will be responsible for discipline and control. Housing, feeding, instruction, and other services will be provided by contract between the institution and the Army. . . .

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Lilly



Changing Tuberculosis

Diseases change their clinical pattern from generation to generation. Scarlet fever and diphtheria, formerly greatly feared infections, now tend to pursue a relatively mild course. The dread influenzal pneumonia of 1918 is replaced by a viral pneumonia of low mortality. Outbursts of fulminating epidemic meningitis may follow in the wake of sporadic milder forms of this disease. Often the altered virulence and epidemiology are not fully understood, but we do know that increase of transportation means increase of contact and of exposure to disease agents. In some instances advancement of epidemiologic knowledge and improved prophylactic measures have definitely decreased the morbidity and mortality and have changed the clinical picture of certain contagions. Such is the case with tuberculosis.

The past decade has witnessed a continuous lowering of the incidence of tuberculosis. Old figures showed, according to the section studied, that from 50 to 90 per cent of children up to 15 years of age had already been infected with tuberculosis.¹ Recent statistics reveal a reduction of more than 50 per cent in the same age group.² Since the child today is better protected against tuberculosis, the primary infection will often be postponed to adult life. Phthisiologists have already noted that the childhood or primary form of tuberculosis now is much more commonly encountered in adults than it has been previously, and the clinical picture is colored thereby.

The pathologic differences between the primary infection and the reinfection have recently been well summarized.³ Any part of the lung may be the site of the primary infection, and the regional lymph nodes at the hilum are generally implicated. These nodes often caseate and appear more conspicuous than the primary lung focus. The usual course is healing with calcification, but not infrequently the infection may be so acute that there is no opportunity for the formation of cavities. Death results from tuberculous meningitis or miliary tuberculosis from hematogenous dissemination. With recovery, calcified scars remain in the lungs and regional lymph nodes.

The reinfection or adult type of tuberculosis differs conspicuously from the childhood form. The apex is almost invariably the site; the course is protracted; cavity formation is prominent, and there is scant tendency for spread by lymphatics or blood stream. Even if the whole lobe is impli-

cated, the regional nodes do not undergo gross caseation. Spread of the adult type is from above downward by way of the bronchial tree.

As more children escape tuberculosis, the disease in the adult assumes many characteristics of the childhood form. It tends to become rapidly progressive, manifesting itself as a tuberculous pneumonia with ulcerative cavities. Any part of the lung may be affected. Dissemination may take place by the lymphatics or blood stream. Whether or not previous immunization has existed is the essential difference between the forms of adult and childhood tuberculosis.

The clinical changes have fortunately been emphasized.⁴ Whereas the age prevalence of tuberculosis was formerly from 15 to 30 years of age, it is now 25 to 50 years of age. Recent exposure is required for infection now, which was not true in earlier years. Now the infection may begin in a tuberculin-negative patient, whereas it occurred previously in tuberculin-positive patients. In former days the source lesion was chiefly from lympho-hematogenous secondary lesions; today the source is equally from recurrent primary and secondary foci. The origin is now exogenous instead of endogenous. The classical tuberculosis was always apical or subapical, but today any lung area may be involved. The lesions, formerly nodular, now are often infiltrative, and tend to pursue a more rapid course, of one to two years, instead of many.

War always threatens a recrudescence of tuberculosis. We must be on our guard for a form of tuberculosis not classically apical and chronic, but with acute lesions occurring in any part of the lung and a rapid course which we formerly associated almost exclusively with children. These early lesions can be disclosed only by x-rays, and their early detection is extremely important because of the rapid progression of this altered tuberculosis. Routine x-ray examination of the chest in young adults should be performed not only by the Army, industry, and the universities, but by all physicians at selected intervals.

1. Fishberg, M. A.: *Pulmonary Tuberculosis*, Philadelphia, Lea & Febiger, 1932, vol. 2, p. 18.

2. Holt, E., and MacIntosh, R.: *Holt's Diseases of Infancy and Childhood*, New York, Appleton Century Co., 1940, p. 1273.

3. Opie, E. L.: *Chinese M. J.* 56: 197 (Sept.) 1939.

4. Mayer, E.: *New York State J. Med.* 42: 1723 (Sept. 15) 1942.

"Soldiers will rise at 6:30 A.M. and from then until taps at 10:30 P.M. that night their day will be as rigorous as it was during the basic training period. A typical week will include twenty-four hours of academic classroom work, including laboratory periods, and twenty-four hours of supervised study time. In addition, there will be six hours a week of supervised physical conditioning and about five hours a week of military instruction. . . . There will be sufficient free time each day for personal affairs, and the men will be off duty from late afternoon on Saturday until the Sunday evening meal.' ""*

It should not be forgotten that this program is designed primarily to provide doctors for the armed forces. Of the total capacity of the approved medical schools in the United States, about 18,750 of the possible 23,000 students will be service men. The balance will be civilian students, roughly about 20 per cent. Intern training will be largely conducted, we understand, in civilian hospitals.

A program of such proportions will merit close study by the profession, especially

* Medical Economics, April, 1943.

with respect to the choice of student material selected from the induction and training centers. This choice and the criteria exercised should be of vital interest and importance to the profession and we hope that the men best qualified in medical education will be freely consulted, as we feel they will be, on these matters. The shortened premedical course naturally cuts down the time in which observation of the character and capabilities of the students can be scrutinized, but if sufficiently expert opinion can be brought to bear during this time in the final selection of those who will be permitted to continue, the experiment should get off to a good start. Once this procedure is placed upon a sound and reasonable basis, we believe that further difficulties will be overcome without too much waste and that educational standards can be maintained. Certainly, it is to the advantage of all that this be done. Nobody wants poorly selected students or poorly trained physicians.

Plasma Therapy and Whole Blood Transfusion

Few subjects have aroused more interest in these war years than plasma therapy. Its applicability to civilian disaster as well as to war medicine and surgery has made it a prime choice for a program of postgraduate teaching.

Plans have been completed recently to present to the medical profession of New York State the very latest information concerning blood plasma therapy and whole blood transfusion. This program is sponsored by the Medical Society of the State of New York, the Office of Civilian Defense, the Health Preparedness Commission of the State War Council, and the State Department of Health. The instruction is presented by a group of especially interested and prepared physicians. The physicians available for lectures and demonstrations at meetings of county medical societies and hospital staffs attended a conference on Friday, February 26, 1943, in the State Office Building, Albany, New York. Leading

authorities on plasma therapy and whole blood transfusion addressed the group, and there were also round-table discussions.

It is now possible to cover the entire state by a well-planned and comprehensive program on these topics. Lectures are presented as special single sessions or in connection with formal courses or for special or regular meetings of county medical societies. The societies have been supplied with the names of the speakers.

Many requests have been received, and up to the present time the Council Committee on Public Health and Education has completed arrangements for instruction at meetings of the following county medical societies: Broome, Clinton, Cortland, Franklin, Greene, Herkimer, Onondaga, Rensselaer, Richmond, St. Lawrence, and Steuben.

We hope that the remaining counties of the state will avail themselves of this timely course of instruction.

Thomas Aloysius McGoldrick, M.D.

Dr. Thomas A. McGoldrick was born in Brooklyn on September 13, 1874. A graduate of St. James Academy in Brooklyn, he attended Manhattan College, where he obtained the degrees of A.B. and A.M., and Long Island College Hospital, where in 1896 he received the degree of M.D. He interned at Brooklyn Hospital and subsequently entered medical practice in Brooklyn. He was a delegate from the Kings County Medical Society from 1933 to 1942, inclusive, and a delegate from the State Society to the American Medical Association from 1938 through 1943.

He was former Chief Surgeon of the Police Department, City of New York, from which office he retired in 1937. In 1938, he was a member of the World's Fair Committee and a member also of the Committee on Matters Pertaining to Public Health. He has been Borough Chief Medical Officer, OCD, Borough of Brooklyn. In 1942, he became President-Elect of the Medical Society of the State of New York.

Dr. McGoldrick is Director of Medicine, St. Peter's Hospital, Brooklyn; St. Anthony's Hospital, Woodhaven; and Welfare Hospital, Welfare Island, New York City.



MALPRACTICE INSURANCE AND DEFENSE

The Importance of the Group Plan

An historical review prepared by the Council Committee on Malpractice Defense and Insurance of the Medical Society of the State of New York.—Editor

MAY 1, 1943, was the twenty-second anniversary of the inauguration of the Group Plan of Malpractice Defense and Insurance of the Medical Society of the State of New York. On May 1, 1921, the House of Delegates, at the Annual Convention, held in Brooklyn that year, ratified an agreement made with an insurance carrier, and the Group Plan came into existence forthwith.

Since the inception of the Group Plan of the Society, there have been various insurance companies that have entered the malpractice insurance field in competition by offering cheaper annual premium rates. It has been noted that, after a few years' loss experience, these companies have materially increased their rates or conveniently withdrawn from the market, thereby subscribing to the soundness of the financial operation of the Society's Group Plan.

To the busy doctor, with little time to make a thorough personal investigation, a lower premium rate has an immediate appeal. However, he fails to realize that if a malpractice action is brought against him, that his good name, reputation, and ethical standing in his community are vitally at stake and that unless he has the best possible medicolegal defense to defend the action, he may injure unalterably those sterling qualities by attempting to save a few dollars in premium cost.

Recently, as the guest speaker before the Medical Society of the County of Kings, Mr. Louis H. Pink, recent Superintendent of Insurance for the State of New York, in speaking about insurance, stated "that nothing can substitute for experience, that sound insurance underwriting is based upon a sufficient accumulation of experience and accurate interpretation of its lessons, that the price of experience is time and it can never be had at cut rates." Mr. Pink further cautioned against listening to those who suggest that lost time can be made up by skipping over all of the evolutionary steps and improvising a mature and workable system in excellence of anything developed after decades of painstaking experiment.

If the time ever comes when the majority of the members fails to support the Group Plan of malpractice insurance, it will result in a heyday for all insurance companies. A disintegrated support will mean a return to the chaotic times

prior to 1921. No longer will organized medicine have a voice in malpractice insurance policy underwriting, a voice as to the coverage afforded, or a hand in establishing annual premium rates. In place of the companies meeting the necessities of the assured, the assured will be forced to accept that which the companies deem best, purely for the interest of the companies and not for the assured.

Twenty-five or thirty years ago the problems of malpractice insurance and defense were relatively unimportant factors in the practice of medicine in the state. The number of suits filed against members of the Society was small, even compared with the smaller membership list of those days. The cost of operating the Society's legal defense service was moderate, and the facilities of the office of the legal counsel were adequate to handle, with a satisfactory degree of success, all of the suits and claims filed. In addition, there were several good insurance companies willing to sell malpractice insurance policies at rates between \$12 and \$15.

A change began to take place, however, at about the time that World War I broke out in Europe. Each year showed an increase in the number of suits and claims filed against members throughout the state and similar increases were reported from other parts of the country. Similarly, the activities of the ambulance-chasing type of attorney increased. The awards made by juries also rose sharply and the seriousness of the situation soon forced itself upon the attention of the entire profession. In this state, the astonishing increase in the number of suits filed and the cost of disposing of them was regarded simply as an abnormal run of chance that would flatten out when the unsettled conditions, following the war, returned to normal. But as time went on, the situation grew worse, instead of better, until it became apparent that what had once been considered as normal had to be discarded as out of date. The medical profession finally concluded that it faced malpractice hazards that increased at about the same rapid rate as the traffic hazards on crowded streets.

The officers of the Society watched these changes closely, fully appreciating the nature of the danger that lay ahead. They foresaw that unless some strong and positive action was taken, to unite all available defense elements into a

Correspondence

February 3, 1943

Dr. Joseph S. Lawrence
100 State Street
Albany, New York

Dear Dr. Lawrence:

I am under the impression that the Medical Society of the State of New York, which you so ably represent, has had few opportunities to be informed of the volume of work which is being done by the Department, the Board of Regents, and the Office of Professional Conduct in the interest of the medical profession. It has been the policy of the Board of Regents not to give newspaper publicity to disciplinary cases on the assumption that when a physician's license is suspended for a period of time and subsequent publicity is given to this suspension that such discipline actually results in a more severe penalty than is intended, and in some cases it amounts to revocation because of the reaction of the public to the person who has been disciplined.

It has occurred to me that it would be helpful if I sent you a kind of monthly report which you might pass on to your constituency in any way you desire. The latest report I have covers the period between December 15 and January 19. During that month 25 additional disciplinary complaints were received which, added to 222 complaints pending, make a total of 247 complaints which received attention during the month. Of these, 8 were closed by com-

mittee action; 137 were under investigation; 11 were referred to the Attorney General; 55 were before the Medical Grievance Committee for informal action and 9 for formal action; and 24 cases were before the Board of Regents.

Twenty-five criminal complaints were received during the period which, added to 140 complaints pending, make a total of 165. Of these, 1 was closed by warning, 17 on the basis of no violation or evidence; 22 were pending in court; 7 were closed by the court; 111 were under investigation; and 7 were referred to the Attorney General.

As you will see, the volume of business in the field of medicine is considerable. This particular period covered by the present statement is not an exception. The work has increased to such an extent in recent months that we have asked the Medical Grievance Committee to furnish us two subcommittees every week until further notice, and the full Grievance Committee, which ordinarily meets twice a year, has agreed to meet four times a year. The Board of Regents is making an extraordinary effort to meet the situation, and in recent weeks we have completely reorganized the record system and the administrative procedure in the Office of Professional Conduct in order that we might render the best possible service to the profession.

With kind regards, I am

Yours very sincerely,
J. HILLIS MILLER

The attention of physicians qualified under the Workmen's Compensation Law is directed to the following Resolution adopted by the Industrial Board, Department of Labor, on April 9, 1943:

"Resolved, that in cases in which the claimant's physician prescribes a surgical appliance, or dental treatment, or denture, for a claimant, the physician shall notify the employer or carrier of the need for such appliance, or dental aid, and direct the claimant to the employer or carrier for the purpose of securing from said employer or carrier authorization for the purchase of such appliance or dental aid before the same is furnished to the claimant by the appliance dealer or dentist.

"A statement to this effect shall be inserted on all medical forms issued by this Department.

"Further resolved, that the medical societies of the State of New York be requested to cooperate with this Department in the enforcement of this requirement by physicians.

ROSE SCHNEIDERMAN, *Secretary*"

The Director has been requested to circularize this Resolution to all physicians authorized to treat compensation cases.

Please note that when a surgical appliance, dental treatment, or denture is necessary, the attending physician shall notify the employer or carrier of the need for such appliance or treatment and obtain authorization for the purchase of the appliance or the rendering of dental care before same is furnished to the claimant.

Very truly yours,

DAVID J. KALISKI, M.D., *Director,*
Committee on Workmen's Compensation
Medical Society, The State of New York

member, insured or not, only the Yorkshire Indemnity Company utilizes the valuable services of our Counsel from the inception of every notice of claim to its ultimate conclusion. The Yorkshire Indemnity Company and its officers are at all times at our service, and they will welcome any inquiry or question which may occur to any individual member and which has to do with the Insurance Company's participation in your Malpractice Group Plan.

In a group plan, it is essential to determine and agree beforehand on the exact manner in which the cost shall be computed, covering, among other things, the amount which shall be added for operating expenses. Similar provisions were made in the original arrangement with the Aetna Company in 1921. At that time, it was agreed that the Group Plan would be charged with an expense loading substantially less than the published expense ratio of the Company. This favorable differential was possible for a number of reasons, all of which tended to reduce the cost of operating the Group Plan. From time to time other economies made it possible to further reduce this charge until, at the present time, the Plan is being operated with a lower overhead than that charged to any other stock insurance operation in the state.

One of the outstanding changes arranged with the Yorkshire Indemnity Company is as follows: The Company has agreed to furnish the Society with a loss voucher form covering each suit or claim closed, with a complete analysis of all expenditures in connection therewith. At the conclusion of each case, this form is prepared in triplicate and sent to the Legal Counsel of the Society to be checked and approved. One copy is retained by him, one is sent to the Insurance Representative of the Society, and one is returned to the Company. No charges are made against the Group Plan except from approved vouchers. This system not only furnishes a check upon the losses charged to the Society's experience, but furnishes data from which it is possible to make any kind of loss analysis that might be required in the future.

It is of interest to note that over 3,500 suits and claims have been closed since 1921, with all liabilities fully discharged. While this is a record in which insured members can find ample cause for confidence and a feeling of security, they should remember that this achievement would not have been possible except for the cooperation and supervision of the Plan by the State Society through its legal and insurance departments. Without that direction by the Society, no scheme for writing malpractice insurance in this state can succeed at rates less than nearly double those required by the Group Plan.

While everyone who has watched the defense of a malpractice suit in his community is familiar with the splendid work of the Society's legal department, only the members of the Insurance Committee come in contact with the work of the insurance department where the business is managed. In that department individual records are kept, tabulations checked, reserves tested, rates computed, plans made, controversies settled, and needed changes initiated and worked out. And it is through this agency that the organized group power of the Society as a whole is brought to bear upon the malpractice insurance situation in the state. The work of this department would never appeal to the interest of a busy doctor, but its labor protects his malpractice insurance welfare quite as much as does any other effort put forth on his behalf.

For twenty-two years the Group Plan has held together the malpractice insurance situation in New York and prevented the high costs and chaotic conditions that most certainly would have existed without it. It stands as a monument to the wisdom and foresight of the State Society, and no one can examine its history or the extent to which it is controlled for the benefit of the members by the Society through its Insurance Committee and Insurance and Legal Representatives without a feeling of comfort and security in the protection which it offers for the future.

DR. CLARENCE G. BANDLER, *Chairman*
Committee on Malpractice Defense and
Insurance

BRITISH DAY AT BLOOD DONOR SERVICE

May 24, 1943, has been designated by the American Red Cross Blood Donor Service as "British Day" in order to enable Britishers and their friends to show their loyalty to the cause of the United Nations by donating a pint of their blood.

Donors who wish to give their blood on British Day may make appointments now by registering at the Service headquarters at 2 East 37 Street. Hours are from 10:30 A.M. to 8:00 P.M. A thorough

physical examination is made and a medical history taken for every donor before he is accepted by the Red Cross.

No one who is not in good health or who has had malaria, diabetes, or tuberculosis within the last fifteen years is eligible to volunteer.

British Day plans are being made by Mrs. William Armour and Miss Gertrude Lawrence, co-chairmen

solid front, medical men would shortly become ready targets for every damage-chasing lawyer who could get to their patients. In the absence of dependable insurance of some kind, members would have nothing standing between them and certain worry, with possible financial loss, except the malpractice defense service of the Society. Even that service might have to be modified unless the Society were able to shoulder the steadily increasing expense that was required to operate it.

The Society had concluded that malpractice indemnity and defense could be provided at reasonable costs in this state only by combining the machinery and funds of an insurance company with the cooperation and defense service of the State Society. It was apparent that if a plan of that kind could be made feasible, it was necessary that it be made equitable to all concerned, together with a comprehensive scheme for malpractice defense by the Society. After a number of conferences, a plan for such an arrangement was drafted, having as its object three fundamental requirements. They were:

First, to relieve the Society of some part of its malpractice defense cost so that it might continue that service for uninsured members without increasing its defense appropriation.

Second, to prevent, if possible, a heavy increase in the cost of malpractice insurance rates for individual members.

Third, to preserve for all members those excellent and highly necessary principles of defense that the Society through its legal counsel had so painstakingly established.

The formula was conceived and the detailed organization carried out by Mr. Wanvig. It is obvious that the organization and operation of a cooperative enterprise, such as the Group Plan, requires management by someone thoroughly familiar with the insurance problem and one whose viewpoint and experience are quite different from those acquired by insurance agents and insurance brokers. In working out the details of group insurance since its inception, it was necessary for our Society to have an insurance specialist who was familiar with every detail of malpractice insurance. He had to enjoy the confidence of the company on the one hand and of the Society on the other, and he had to know exactly to what the insurance company was entitled but in a larger measure to what the members of the Society were entitled, and how to keep the details of organization and operation constantly in order for the benefit of the Society.

In addition to covering many routine matters that had to be provided for, the arrangement with the company was based upon three provisions giving the essence of the undertaking:

1. That all suits and claims against insured members would be handled exclusively by the Legal Counsel of the Society.

This was a bold experiment because, so far as we know, it was the first time in the history of insurance that a company had been induced to turn over the defense of claims, for which it was liable, to the legal counsel of the policyholder. It was a very important provision so far as the members were concerned, as that was the only way in which highly specialized and competent legal defense could be guaranteed to them.

2. That the company would issue policies only to members of the State Society in good standing.

This was likewise an important provision because it eliminated the possibility of suits and claims against nonaffiliated doctors having an unfavorable influence on the loss experience charged to the Society.

3. That the company would conduct the business for the Society on what amounted to a cost-plus basis.

The arrangement provided in detail for the manner in which the cost would be computed and fixed the amount which would be charged to the Society's experience for expenses. Under such an arrangement there could be no question of unfairness to either the policyholder or the company, and no opportunity for one to profit at the expense of the other.

In 1936, the Yorkshire Indemnity Company became the official carrier of the Malpractice Group Insurance Plan of the Medical Society of the State of New York. The coming of the Yorkshire into the picture was the culmination of a development of a problem which had arisen months prior to that time. The Yorkshire by its very background was interested in malpractice insurance because a challenge was presented in setting a course and carrying through with a program that requires constancy to a long view. You have read of the trials and difficulties of malpractice insurance as they were experienced in New York State.

We are now in the eighth year of our association with the Yorkshire, and it can be said that progress is being made toward bringing about an improved experience so that ultimately the membership of the Society may benefit by lower rates. This has necessitated the reduction of factors which were improperly weighing heavily upon the experience as a whole. This was accomplished through the development of a closer working arrangement with our Counsel, our Indemnity Representative, and the Carrier than heretofore had been possible. We believe that it is in order to point out that while it is true that our Counsel is available to every

of the prison system. I would give my name to the prisoner, tell him of my voluntary status, and tell him that, while subject to the rules and regulations of the prison system, I owed no one any account of what we would talk about. I would tell him that I was a physician, a psychiatrist, interested in people like himself, that I could give him no help whatsoever as far as his status was concerned, and that should anything transpire in the course of our talks that might prove of helpful value to him, I would report it if he would permit me. I would also make clear to him that he need not talk to me if he did not want to, that as far as I was concerned he was an absolutely free agent. I would state that if he had anything special to do which he would not want interrupted by our interviews, he should feel free to say so in advance and I would see him at some more convenient time, that I did not want to interfere with anything he wished to do.

This rather simple and brief statement never failed to elicit a responsive warmth on the part of the prisoners. The more cautious or the more intelligent would ask for explanations: What kind of doctor are you? Why did they let you in here, if—etc.? What do you want me to tell you? To these questions the frankest answers were given. Great care was taken not to stress the fact that I was interested in the criminal act or acts which had brought the men into prison. The crime itself was treated at first as casually and as remotely as possible.

The interviews lasted half an hour and there were no more than two each week. The importance of the first interview must be underscored. Here, within the prison walls, behind bars, the unfree man, his civic personality abolished by law, himself but one number in a gray herd of other numbers, is at once given the opportunity to have the innermost independence of his human personality resuscitated as if from the dead. We know how powerful an influence psychological reality exerts on one's life, and here the chief psychological goal is to galvanize this particular reality in the prisoner for therapeutic purposes. The whole system of retributive justice, with its ironclad régime and ironbound omnipotence, acquires from the psychological point of view only the meaning of a harsh—almost fatal—reality, which is yet unable to crush self-respect or the awareness of one's own ego. This psychological trend does not always establish itself at once during the first interview, but the start in the right direction, which never fails to make a deep impression, very soon leads to a state of humble self-respect—an orientation invaluable for the therapeutic influence of criminal cases. In addition, the

criminal in this situation, for the very first time since his arrest or even since he committed the transgression of law, faces another person of whom he is not afraid, who has no power over him, and who does not appear to derive any material benefit from his particular "case." In this respect the therapist is psychologically in a more advantageous position than even the criminal's defense attorney.

It is tempting, of course, to relate here in detail a number of cases which I had the good fortune to treat in Sing Sing, but a complete report will have to be deferred until a later date. A few years ago I reported to the New York Neurological Society one of the most extraordinary cases of murder, in which there was complete amnesia for the act of murder as well as for the motive. The law was not at all puzzled about the matter, as the law never is. It thought that the amnesia was a fake and that the motive was robbery. The murderer was really unaware of the fact of murder; he was in a sort of twilight state. In his dreams, however, the place of the crime, the crime itself, and its inner motivation—which incidentally had nothing to do with robbery and nothing to do with the victim himself—all came out with startling and almost undisguised directness. This man (in his late twenties) was treated for only a few months, but during this brief period he gave ample evidence that his whole personality, his comparatively minor past transgressions, and his final crime, presented an uninterrupted chain of psychological developmental links. These he began to understand with a great deal of interest and satisfaction. As far as I know, he is still in prison and will stay there for another twenty years or so. As long as this man is alive and as long as he is still apt to rejoin normal life some day outside the prison, one is reluctant to publish the full details of the case. It is difficult to make predictions, but on the basis of the data obtained during the investigative therapeutic period, it is equally difficult not to believe that this man could be fully cured.

The same may be said of a number of other murderers who were treated in the same way. There was a blind man; his optic decussation had been severed by a bullet with which he had shot himself after he had shot his love-partner as a result of a suicide pact. The girl did not survive, and the "criminal," with an arm band reading "blind" on each of his sleeves, partly amnesic and partly delusional about the event, led a prisoner's existence. His response to the therapeutic approach was remarkable despite his age (his early sixties or late fifties).

Again, there was an Italian plasterer who had killed the doctor who attended his favorite child,

INVESTIGATIVE PSYCHOTHERAPY IN CERTAIN TYPES OF CRIMINALS

GREGORY ZILBOORG, M.D., New York City

STRICTLY speaking, it would not be out of place or out of order for the psychiatrist who is interested in forensic psychiatry to re-examine his field of interest and to redefine some of the basic phenomena with which he deals and some of the fundamental concepts that he customarily uses. A certain general confusion has begun to infiltrate our terminology as well as our methods of approach. The word "criminal" requires careful pondering; the term "antisocial behavior" requires elucidation. Is a fifth-columnist antisocial and criminal, and if so, could he be cured by means of psychotherapy? Is a striker antisocial, or criminal, and could he be benefited by a psychotherapeutic approach? Is an army deserter antisocial and criminal in the sense in which we use these words, and could he be psychoanalyzed out of his wish to desert the army? Evidently we call criminal and antisocial the individual who either has already transgressed the law, is already serving a sentence, or has been paroled.

In other words, quite imperceptibly and unwittingly, we have drifted into silently accepting the definition of the criminal as given us by the law and not by psychiatry. There may be no objection to our accepting the legal definition, provided we keep always in mind the fact that the definition is not ours. Our attitude toward the criminal should remain our own, regardless of the attitude of the law. If we consider the criminal an individual in trouble, curable or potentially curable, and his crime a symptomatic phenomenon, we may perhaps find ourselves in a better position as therapists of this particular type of disorder or human misfortune. This is a point of prime importance, for the therapist cannot be an ally of the law. He need not and should not necessarily be an opponent of the law, but he cannot be an active proponent. He must treat the law itself, first, merely as a social phenomenon, and, second, as a condition, a circumstance, a potent factor which the individual called the criminal has to face and meet and handle psychologically, and to which he must adjust himself.

No true therapeutic situation is really possible without the doctor's detached observational attitude toward these matters. Moreover, the doctor vitiates the therapeutic situation in all respects unless his relationship to the prisoner or the paroled criminal is totally free from any administrative authority. A doctor who has

official administrative control over the patient has almost insurmountable difficulties in his therapeutic efforts. More than that, a doctor who has control over a prisoner, who is an official part of the prison machinery administering justice, is in my opinion almost totally unable to exercise any true therapeutic influence on the prisoner.

These considerations are not merely theoretic assumptions; they are based on many years' experience of many psychotherapists. They are easily verified and corroborated by anyone who has done work in prisons, an opportunity that I had when I worked as a volunteer in Sing Sing Prison. I found that the classification clinic, no matter how good its work, was considered by the criminal to be a part of the prison—that is, a part of the punitive system. The criminal complied with its demands and its routine because he had to; moreover, he was convinced that, no matter how humane the attitude of the prison psychiatrist, whatever he, a prisoner, would say or reveal had to become a part of the record. He felt keenly that whatever kindness was extended to him and whatever tests he was subjected to, they all—to use the words of Bernard Glueck—tended to make him a better prisoner rather than a better citizen. Under these circumstances, the prisoner seldom, if ever, found himself in a state of therapeutic compliance; he was, instead, in his usual state of enforced administrative compliance.

From this point of view, my brief investigative experience seemed to me instructive enough to warrant sharing it with others.

I was received in Sing Sing with the reluctant welcome characteristic of such institutions, but thanks to kindly understanding on the part of Dr. Amos T. Baker, then head of the classification clinic in Sing Sing, I was permitted to speak with any prisoner in whom I was particularly interested—to speak with him alone and freely, without owing any account of what I learned to any authority. As long as I obeyed the rules of the prison, I was free to work.

A list of prisoners I wished to see was given in advance to the proper office, and on my next visit the prisoners were ready and waiting in a room nearby. I would see each one alone, in a separate room, behind a closed door. I would address the prisoner as Mr. So-and-So, would shake hands with him. During the initial interview, I would state that I was not a part

OSTEOGENIC SARCOMA OF VERTEBRAE SECONDARY TO PAGET'S DISEASE

Report of Three Cases with Compression of Spinal Cord and Cauda Equina

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OSTEOGENIC sarcoma occurs not infrequently in patients with Paget's disease of bone. These tumors have been reported as having arisen in the long bones, the pelvis, and the skull. Despite the fact that the vertebrae are among the more frequent sites of predilection for osteitis deformans, malignant degeneration therein has seldom been recorded. The authors' recent observation of 3 such cases makes them wonder if this condition is as unusual as has hitherto been supposed. It therefore appears worth while at least to call the attention of the profession to this experience.

Case Reports

Case 1.—I. T. M. (A. H. 77397), a 52-year-old white blacksmith, entered the Albany Hospital December 10, 1940, having been referred by Dr Irving Gage, of Albany. He complained of pains of four months' duration in the right hip, thigh, and leg. These had gradually become more severe and were accentuated by coughing or straining. Weight-bearing on the right leg was no longer possible because of pain, and for the same reason morphine was required. Sensations of numbness and coldness were present along the posterior and lateral surfaces of the right leg and thigh. There was no history of weight loss.

The past history was of interest in that during the period from ten to five years before admission the patient had noted an increase in his hat size from 7 to 7 $\frac{3}{4}$ and at the same time the occurrence of severe headaches. At the end of that time the pains ceased and no larger hats became necessary. No change in height had been noted. He recalled having slightly sprained his back eighteen months previously. Since then he had suffered recurrent attacks of lower back pains, but these had not been sufficiently severe to keep him from work. For one month before admission, he had developed moderate frequency of urination. For this reason he had been cystoscoped but was told that no abnormality of the bladder or prostate had been found. The family history was noncontributory.

Physical examination: Examination disclosed a strong, well-muscled individual, obviously suffering excruciating pains. These were localized principally in the right calf and ankle, and were greatly accentuated by even slight movements of the back or right leg. Save for moderate enlargement of the calvarium, and for bilateral diminution of hearing,

the general physical and neurologic examinations were negative, with the following exceptions: There was evident atrophy in the muscles of the right thigh; at corresponding levels the circumference was 16 inches in the right thigh and 17 inches in the left; the calves each measured 11 $\frac{3}{4}$ inches. Fibrillary twitching was observed in the muscles of the lower extremities, especially those of the right thigh. The knee jerks were hyperactive, to a greater degree on the right; both ankle jerks were abolished. No abnormal reflexes were elicited. Appreciation of cotton-wool and pinprick was totally absent on the posterior surface of the right thigh and on the posterolateral surfaces of the right calf and foot. Appreciation of heat and cold was impaired on the posterior aspect of the right thigh in a small area just below the gluteal fold. Position sense was unimpaired. Vibratory sensation was lost over the sacrum and coccyx. Straight leg raising was limited to 45 degrees on the right and to 60 degrees on the left. Patrick's sign was positive bilaterally. There was marked flattening of the lumbar curve with spasm of the right sacrospinalis muscle.

Laboratory data: Hemoglobin, 14.5 Gm. per 100 cc.; red blood cells, 5,000,000; white blood cells, 12,600. The differential white blood count was normal, as were the erythrocytes on the stained smear. The Wassermann and Kahn reactions on the blood serum were negative, and urinalysis showed no abnormalities.

A cauda equina tumor was suspected.

Roentgenologic report (Dr. W. P. Howard): "There are changes which are suggestive of Paget's disease in the sacrum and pelvis. The interpedicular measurements of the third and fourth lumbar vertebrae are normal. That of the fifth cannot be ascertained because the pedicles cannot be identified from the radiographs.

"There are also changes in the skull suggestive of Paget's disease.

"Following the instillation of lipiodol, a persistent filling defect is visible opposite the joint between the fourth and fifth lumbar vertebrae and extending below it (Fig. 1). The material as a whole is displaced to the left, and none of it extends downward opposite the lumbosacral joint when the patient is in an erect position.

"While the changes in the spinal canal may be due to a displaced disk, it is possible that they may be an expression of osteogenic tumor associated with Paget's disease."

In view of these findings, it was suspected that the tumor was a sarcoma arising on the basis of a pre-existing osteitis deformans. Operation was carried out on December 12, 1940. Under avertin

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Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

a little boy. The man was convicted to death, spent many months in the death house, saw thirteen murderers—including Ruth Schneider—pass by his cell on their way to the electric chair, was granted a new trial, and sentenced to five to ten years' imprisonment. This man did not realize what he had done till after the crime. He believed at the time of the act and later in prison that the doctor was responsible for the death of his child. Factual and psychological evidence would seem to corroborate his belief. The doctor's behavior only enhanced the man's conviction, for he asked the desperate father not to say anything to anyone and offered, as a compensation for his silence, to pay for the funeral of the little boy, whose body was at the time duly laid out in the kitchen. The paternal and religious pride of the man was enraged: "I am an Italian man," he cried, "and I bury my child myself." He struck the doctor, who fell unconscious. In a fugue-like rage, the father rushed into the kitchen where the family stood around the open coffin, seized a knife, returned to the doctor who still lay unconscious on the floor, and stuck the knife in his throat. As he saw blood, he returned to his family, announced that he had committed a crime, left at once to call on his older brother who lived many miles away, told him the story, and they both peacefully decided that his duty was to surrender to the police, which he at once did. This simple and honest plasterer may never again commit another crime. If he does not, it will not be because of the preventive power of the prison term.

He was a plasterer in Brooklyn, he was a plasterer in Sing Sing, and he continues to be an honest plasterer now in the outside world.

The psychological picture of this criminal act was highly instructive, and it shed a great deal of light on the sudden accumulation of murderous drives in an individual.

This period of investigative therapy gave rise to the following trend of thought:

1. Our prison system would do well if outsiders who have nothing whatsoever to do with the prison system would be permitted to undertake systematic individual psychotherapy within the prisons. This investigative therapy would not only permit the psychiatrist to gain extremely valuable information otherwise totally unobtainable, but it might—and if pursued long enough probably would—bring about good therapeutic results which would not only help the future adjustment and rehabilitation of the criminal, but would also help in the problem of true understanding of the origin and meaning of crime. Perhaps this understanding would offer a really potent tool for the reform of the criminal law.

2. The brief experience in Sing Sing seems also to suggest in a rather convincing manner that psychiatry could be therapeutically most effective in criminal cases if it were organized for this purpose independently of any agencies of criminal law. Such an organization of therapists, acting under its own auspices or under the auspices of the public health authorities, could then come to a workable agreement with the prison authorities, under which the psychotherapist as a free agent could treat the prisoner as if the latter were also a free and self-respecting individual. Only in an atmosphere of this type of free therapeutic endeavor might many an aspiration of forensic psychiatry for true reform come to fruition.

EXAMINATIONS IN OBSTETRICS AND GYNECOLOGY

The general oral and pathologic examinations (Part II) in obstetrics and gynecology will be conducted in Pittsburgh by the entire American Board of Obstetrics and Gynecology from Thursday, May 20, through Tuesday, May 25, 1943. The Hotel Schenley in Pittsburgh will be the headquarters for the Board, and formal notice of the exact time of each candidate's examination will be sent to him in advance of the examination dates. Hotel reservations may be made by writing to the hotel.

The Pittsburgh Obstetrical and Gynecological Society will hold an informal subscription dinner meeting at the Hotel Schenley, on Saturday evening, May 22, at 7:00 P.M. Visitors, present for the examinations, are cordially invited to make arrangements to attend. Reservations may be made by writing to Dr. Joseph A. Hepp, Secretary of the Society, at 121 University Place, Pittsburgh.

The Office of the Surgeon General (U.S. Army) has issued instructions that men in service who are eligible for Board examinations be encouraged to apply, and that they may request orders to Detached Duty for the purpose of taking these examinations whenever possible.

Candidates in military or naval service are requested to keep the Secretary's Office informed of any change in address.

Deferment without time penalty under a waiver of the Board's published regulations applying to civilian candidates will be granted if a candidate in service finds it impossible to proceed with the examinations of the Board.

Applications are now being received for the 1944 examinations. For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

Soon after returning home, the patient began to lose weight. The pains became more severe and more widespread throughout the legs, hips, and lower back, requiring frequent, large doses of morphine. He died on May 26, 1941, five and one-half months after operation and nine and one-half months after the first symptoms.

The history and neurologic findings were typically those of a cauda equina tumor. This was confirmed roentgenographically following lipiodol injection. Paget's disease of the sacrum and skull were also demonstrated. This combination of factors strongly suggested the probability of sarcoma.

It was hoped that removal of the intraspinal tumor and division of the first sacral nerve would afford considerable relief of pain. In retrospect, it would have been desirable to have performed a more extensive posterior rhizotomy or, perhaps better still, a cordotomy, when the nature and location of the tumor were disclosed.

Histologically, this tumor more closely resembled a chondrosarcoma than an osteosarcoma. The latter type is that which has usually been encountered in Paget's disease.

Case 2.—E. K. (S. P. H. 41-3403), a 53-year-old white painter, was admitted to St. Peter's Hospital on November 24, 1941, at the instance of Dr. James F. Rooney. For the previous month he had complained of pain in the upper back, radiating to both shoulders, and in the sacral region. He had continued to work, however, until seven days before entering the hospital, when weakness and numbness appeared in both legs, and the pain previously noted became intolerable. In the right knee and the right side of the abdomen, he experienced almost continuous painful sensations of pressure. Urinary symptoms had not occurred prior to admission. There was no history of weight loss.

The past history was significant in that, beginning two years before, his stature had decreased. During this time he had become noticeably hunch-backed. He had not observed any change in the size of the head, but he stated that for many years he had worn the largest size hat available, usually 7 $\frac{3}{4}$. There was also a history of mild hypertension, for which he had been under a physician's care for five years.

Physical examination: Although he was one of those bravely cheerful individuals who tend to minimize discomfort, his suffering was nevertheless obvious. The head, or rather the calvarium, was large. Temperature, pulse, and respirations were normal. Blood pressure was 120/90. Abnormal physical findings were as follows: The scalp was thin, making tortuous temporal arteries and scalp veins stand out all the more prominently. Marked kyphosis was evident in the upper dorsal region. No bowing of the femora or tibiae was present. The chest was barrel-shaped and hyperresonant. The heart was slightly enlarged, and a soft systolic murmur was audible at the apex. There was

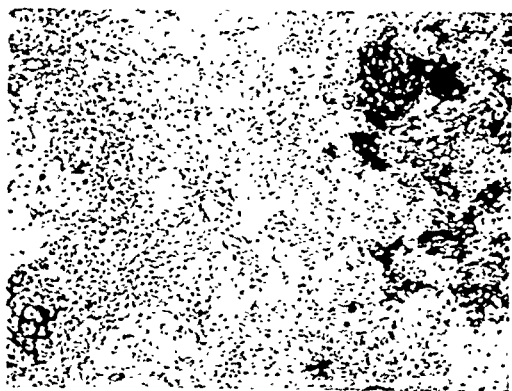


FIG. 3. Case 1. Microphotograph showing chondrosarcoma. Note cartilaginous tumor tissue on the left and neoplastic bone formation on the right. H. and E. $\times 120$.

some thickening and tortuosity of the radial and brachial arteries.

Marked spasticity and weakness of both lower extremities were found. A sensory level was discovered bilaterally at the seventh dorsal dermatome, below which all forms of sensation were partially abolished. Deep reflexes in the legs were hyperactive and plantar responses were bilaterally extensor in type. The bladder was distended; the patient was unable to void.

By the following morning the weakness of the legs was much more marked, while the sensory loss below the seventh dorsal dermatome was almost complete. A small area of considerable tenderness was found over the spinous processes of the fifth and sixth dorsal vertebrae.

Laboratory data: Hemoglobin, 61 per cent; red blood count, 3,420,000; white blood count, 6,000. The differential white blood count showed no abnormalities. Urinalysis disclosed a trace of albumin and a few fine granular casts, but was otherwise negative.

Blood chemistry: Calcium 8.0 mg. per cent; phosphorus, 4.1 mg. per cent; phosphatase, 23.1 Bodansky units.

Roentgenographic study of the thoracic spine (Dr. I. J. Murnane): In many of the vertebrae, coarsened trabeculation and some increase in the density of the cortices could be seen. There was almost complete destruction of the body of the seventh thoracic vertebra and partial destruction of the body of the eighth with collapse, causing rather marked kyphosis in the midthoracic region (Fig. 4). There were also extensive hypertrophic arthritic changes throughout the thoracic spine—in places causing almost complete bridging between the bodies.

Films made following the cisternal instillation of lipiodol disclosed a complete block at the level of the fifth to sixth dorsal vertebrae.

Thick, coarse trabeculation was visible also in the upper end of the left humerus, and there was some thickening of the cortex of the left clavicle.



FIG. 1. Case 1. Lipiodol myelogram showing complete obstruction of the spinal canal opposite the fifth lumbar vertebra. The roentgenographic changes characteristic of Paget's disease are unsatisfactorily reproduced in this film.

anesthesia the spinous process and laminae of the fifth lumbar vertebra were removed. A tough, elastic extradural tumor was found on the right side, partially filling the lower lumbar and sacral canal.

When the upper sacral laminae were rongeuired away, the mass was seen to be attached to the bone in the region of the first right sacral foramen. The first sacral root was surrounded by tumor and was resected with it (Fig. 2). Within the canal, the other sacral nerves were somewhat compressed by the growth. It was obvious that the tumor was malignant, and that it extended beyond feasible limits of resection. The wound was closed in layers with fine silk.

Pathologic report (Dr. A. W. Wright): "The specimen consists of one large and five small, irregular pieces of pinkish-red, dense, smooth, shiny fibro-elastic tissue. The large piece measures 5.0 by 1.0 by 0.5 cm. The small pieces measure about 0.8 by 0.6 by 0.3 cm. Together they weigh about 4.0 Gm. On section the tumor feels gritty and firm and appears quite vascular. The cut surfaces are pale white and homogeneous.

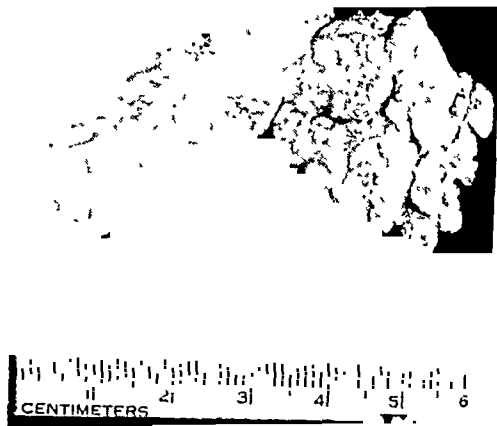


FIG. 2. Case 1. Chondrosarcoma of sacrum after partial excision. The smooth oblong portion extended upward into the lumbar canal. The tumor was entirely extradural.

"On microscopic examination (Fig. 3) the tissue is seen to consist chiefly of small masses of differentiated hyalin cartilage arranged in somewhat nodular fashion with a definite perichondrium. In some areas, however, the mesenchymal cells have not fully differentiated into cartilage, but are oval or spindle-shaped, with much intercellular hyalin material. Calcium deposits can be seen near these areas among the cartilage cells, and adjacent to them lie many multinucleate giant cells, apparently osteoclasts.

"Reference to an authoritative monograph on bone diseases does not disclose any description of a histological appearance of this sort as an integral part of Paget's disease. The extradural mass is considered to be a true neoplasm of mesenchymal origin, growing chiefly as a chondroma, but containing foci of undifferentiated cells which may represent early sarcomatous change."

The incision healed promptly, and for a few days the patient appeared to be slightly improved. Soon, however, the pain recurred and became so severe that opiates again had to be administered. Deep x-ray therapy was instituted. When a total of 1,125 r had been given over a period of ten days, the treatments were discontinued at the request of the patient.

At discharge, four weeks after operation, he was able to walk unassisted. Straight leg raising was accomplished to 90 degrees on either side. The neurologic findings were essentially unchanged, save for hypo-esthesia in the third and fourth right sacral dermatomes. A small hard mass on the anterior surface of the upper sacrum could be felt by rectum.

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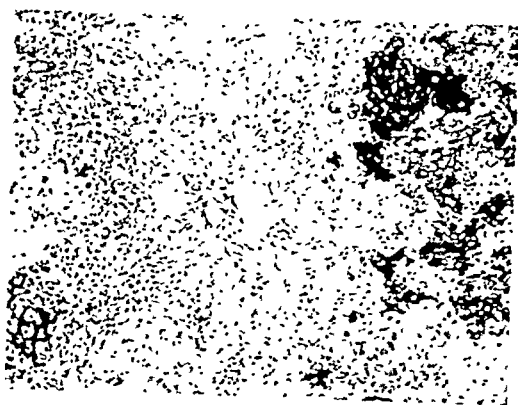


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FIG. 4. Case 2. A. and B. Anteroposterior and lateral roentgenograms of spine showing extensive changes characteristic of Paget's disease from the fifth to the eleventh dorsal vertebrae. Note the kyphosis beginning at the collapsed bodies of the seventh and eighth. The type of collapse is that characteristic of pathologic fracture. Irregularly increased density and coarsened trabeculation are evident.

The cranial vault (Fig. 5) was markedly thickened, this process having involved both inner and outer tables. Diffuse mottling was present.

On the basis of these findings, a diagnosis was made of Paget's disease with pathologic fractures of the seventh and eighth dorsal vertebrae. In view of the destruction evident in the body of the seventh vertebra and of our experience with the previous case, a tentative diagnosis of sarcoma was made.

Operation (November 25, 1941): Under novocain infiltration anesthesia, the spinous processes and laminae of the fifth, sixth, and seventh dorsal vertebrae were removed. Lying outside the dura was a large, grayish-red tumor. It was not so tough as was that in Case 1, but it was more vascular. It was situated principally on the right side of the spinal canal and extended into the intervertebral foramina. The pedicles, laminae, and apparently the bodies of the fifth and sixth dorsal vertebrae were involved. A large tongue of tumor tissue was present anterior to the dura, thrusting the cord backward. The chief portion of the tumor within the spinal canal was removed. All tissues were unusually vascular, particularly the bones. This was true not only of the spinous processes and laminae involved in the sarcoma, but also of those in which the pathologic process was limited to osteitis deformans. Osseous tissue everywhere was so soft and spongy that it could readily be cut with a knife. One wondered why the kyphosis had not been even more marked!

It was necessary to make a 4 or 5-cm. opening in the dura in order to gain satisfactory decompression.

Closure was then effected in layers, using interrupted sutures of fine silk. A transfusion of 500 cc. of whole blood was given at the end of the operation.

Pathologic study of the tumor (Dr. John J. Clemmer, Bender Laboratory): "The specimen consists of three masses of friable, opaque, yellowish-gray, somewhat granular tissue, the largest measuring 2.5 by 1 by 0.6 cm. and the smallest 0.9 by 0.5 by 0.4 cm. The largest appears to contain numerous minute bony trabeculae.

"Also received were numerous ragged fragments of bone with attached striated muscle and fibroadipose tissue forming a mass together about 3.5 cm. in diameter. Some of these fragments appear somewhat more brittle than normal and show poorly defined architecture.

"Microscopic examination: Sections of the soft tissue (Fig. 6) show large polygonal-shaped cells with ovoid nuclei of variable size and much bluish-red, intercellular material resembling osteomucin. Scattered foci of partial calcification, staining deep purple, are noted. Multinucleate tumor giant cells are numerous, and spindle-cells are intermingled with the other types mentioned. Mitotic figures are moderately numerous.

"Sections of bone tissue, which apparently has been submitted from the Paget's lesions (Fig. 7) at a distance from the tumor, show irregular bony trabeculae with intermingled loose fibrous tissue. Large multinucleated, giant osteoclasts are scattered about, and many of the bony trabeculae exhibit

crenated margins suggesting osteolysis. Other trabeculae show osteoblasts along the margins, with evidence of osteogenesis. The fibrous tissue contains relatively few blood cells. Those cells present included lymphocytes, myelocytes, nucleated reds, and a rare polymorphonuclear.

"Diagnosis: Osteogenic sarcoma of the sixth and seventh thoracic vertebrae; Paget's disease of bone."

Recovery from operation was satisfactory, and the wound healed per primam. The patient was soon able to move both legs; the knee and ankle jerks returned; and the plantar responses became flexor in type. Bladder control was regained for a time. Sensation, however, was little improved, the sensory level to all modalities save cotton-wool remaining at the seventh dorsal dermatome. Appreciation of light touch became normal over the entire body at first although it later faded out again.

The patient was discharged to a nursing home on January 3, 1942. Within a few weeks, evidence of cord compression was again noted. This has progressed to a point of total motor and sensory paralysis below the level of the tumor. At the present time he is still free from pain but is steadily losing weight and going downhill. No evidence of metastasis is apparent, although another roentgenogram of the chest has not been made.

As in the first case, the development of symptoms was relatively rapid. The onset of pain had occurred but a month before and the patient had worked as a painter until seven days before the transverse myelitis became almost complete. Operation relieved his pain but afforded only a brief respite from cord compression.*

In the following case the existence of sarcoma was unproved either by operation or by autopsy. However, the history, physical, and roentgenologic findings and subsequent course were so strikingly similar to those in the first two patients that it has been included here.

Case 3.—A. M. A. (A. H., 89485), a 64-year-old white widow, was admitted to the Albany Hospital under the care of Dr. T. J. C. von Storch on December 9, 1941. For the previous three and one-half months, she had complained of pains which began in the midsternal region and radiated around the costal margins. At first these were on the right side only, but soon they became bilateral. Four weeks before admission weakness and numbness of both legs had appeared. This had progressed until two days before entry when she became completely paralyzed below the waist. She was incontinent of both feces and urine.

In the past history it was of interest that she had suffered a right hemiplegia fifteen years previously. This had almost cleared up, leaving but slight



FIG. 5. Case 2. Lateral roentgenogram showing Paget's disease of skull with typical "cotton-wool" appearance of calvarium.

lameness in the right leg. For many years vision in the right eye had been poor because of a slowly developing cataract. The family history was non-contributory.

Physical examination: The patient was an obese white woman exhibiting a somewhat enlarged heart, evidence of generalized arteriosclerosis, and a mature cataract in the right eye. The abnormal physical findings were as follows: There was spastic paraplegia in extension of the lower extremities, with the absence of all voluntary movement save in the toes of the right foot. The deep reflexes in the lower extremities were markedly hyperactive, with bilateral, sustained ankle clonus. The abdominal reflexes were absent while the plantars were extensor in type. There was a sensory level for all modalities of sensation (save for vibratory sense, which was imperfectly preserved everywhere) at the level of the sixth dorsal dermatome.

Laboratory data: Hemoglobin 14.5 Gm. per 100 cc.; red blood cells, 4,890,000; white blood cells, 5,4000. The differential white blood count was normal, and the erythrocytes appeared normal on the stained smear. Urinalysis disclosed no abnormalities.

Blood chemistry: Calcium, 10 mg. per cent; phosphorus, 3.5 mg. per cent; phosphatase, 10.5 Bodansky units.

Roentgenographic examination of the stomach and colon disclosed no abnormalities. That of the skeleton showed (Dr. W. P. Howard): "The bodies of the fourth, fifth, sixth, and seventh dorsal vertebrae are unusually dense and the anterior portion superiorly of the body of the eighth has similar changes (Fig. 8). The body of the sixth dorsal

* Following the submission of this paper, the patient described in Case 2 died on May 3, 1942. A complete post-mortem examination was made showing osteogenic sarcoma of the fifth and sixth thoracic vertebrae with compression of thoracic portion of spinal cord by tumor; osteogenic sarcoma, metastatic, of the right lung and pleura; and Paget's disease of vertebrae and skull.

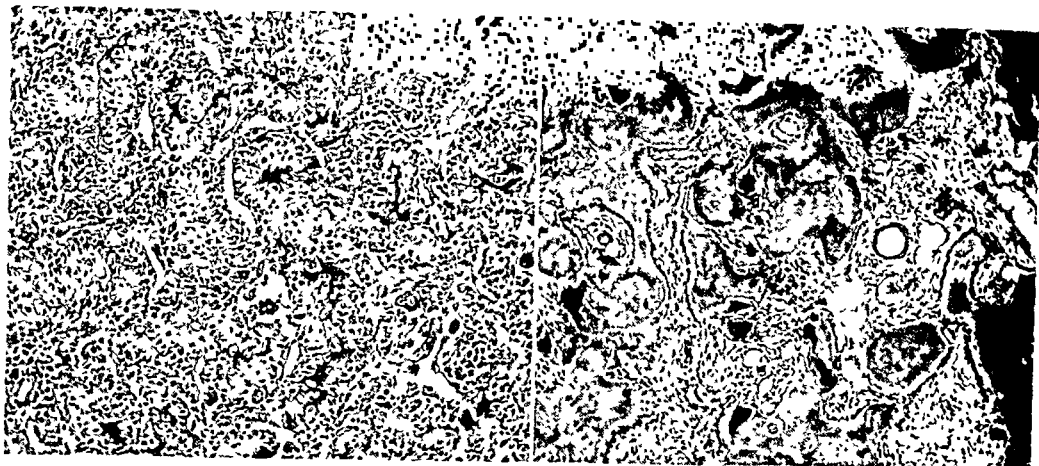


FIG. 6. Case 2. Microphotograph of osteogenic sarcoma showing pleomorphism of tumor cells and an abortive attempt at bone formation. The neoplasm is well vascularized and mitotic figures are relatively frequent. H. and E. $\times 120$.

FIG. 7. Case 2. Microphotograph of spinous process uninvolved by tumor mass. Note the diffuse fibrosis, the numerous osteoblasts lining newly formed bone, the destruction of bone by osteoclasts, and the irregular bone trabeculae resulting from this simultaneous osteogenesis and osteolysis. These changes may be considered typical of osteitis deformans. H. and E. $\times 120$.

vertebra is reduced to one-half of its vertical diameter, and the intervertebral articulations between these bodies show evidence of partial destruction of the cartilage.

"Similar changes are visible in the left side of the pelvis involving the ilium, the acetabulum, and the superior and inferior rami of the pubis (Fig. 9). The rami are unusually thick.

"The findings in this case are those of Paget's disease. However, tumor cannot be definitely excluded.

"There are no changes visible in the bones of the skull."

The presence of a sarcoma is suggested by the invasion of the articular cartilages, which does not occur in uncomplicated osteitis deformans.

That the patient had Paget's disease was clear. The level of the spinal cord lesion was opposite the collapsed body of the sixth dorsal vertebra. Both the history and the roentgenologic findings were consistent with the diagnosis of sarcoma arising on the basis of osteitis deformans. However, it is quite possible that the vertebral collapse was simply due to the softening of Paget's disease, as has been described by Wyllie¹ and others.

Laminectomy was recommended but was refused by the patient. She was discharged to her home, where she died three weeks later. Permission for autopsy was not granted.

Discussion

Incidence of Paget's Disease.—That Paget's disease is not a rarity may be judged from the fact that 146 cases have been discovered (among 94,962 patients) in the Department of Roentgenology of the Albany Hospital during the

past ten years. This represents an incidence of 1:650. While these figures are somewhat higher than those of certain observers (Bird,² 1:3,000; Hurwitz,³ 1:10,000), they nevertheless attest the general frequency with which this malady may be encountered.

Occurrence of Malignant Degeneration.—In his original description of the disease which bears his name, Paget⁴ recorded an instance of sarcoma arising from osteitis deformans of the radius. Numerous subsequent reports have shown that this dreadful complication is to be expected in a small percentage of cases. Packard, Steele, and Kirkbridge⁵ found 5 instances of sarcoma among 67 cases, an incidence of 7.5 per cent. An example of multiple sarcoma formation was that recorded by Gruner, Scrimger, and Foster.⁶ Bird² added 9 verified cases, an incidence in his series of about 10 per cent, while Ochsner and Gage⁷ and Breslich⁸ added one each.

After studying the files of the Bone Tumor Registry, Codman⁹ stated: "Apparently bone sarcoma does not arise in the unhealthy after 50 except in cases of Paget's disease. If the patient was in poor health at the time of onset, the probabilities favor the tumor being inflammatory—tuberculosis, syphilis, osteitis, etc. With the exception of cases which also have Paget's disease, 12 in number, we have no instance of osteogenic sarcoma in a patient over 50. Paget's disease rarely occurs before 50. As recently computed by Bird and Sosman, the incidence of osteogenic sarcoma in Paget's disease is 12 to 14 per cent (personal communication)."



FIG. 8. Case 3. A. and B. Anteroposterior and lateral roentgenograms of dorsal spine showing increased density in the bodies of the fifth, sixth, and seventh vertebrae with partial collapse of the sixth. The intervertebral spaces in this region appear narrow. The diagnosis of sarcoma cannot be positively made but was suggested by the appearance of the vertebrae and the subsequent clinical course.

The experience of Coley and Sharp¹⁰ was similar. They also drew attention to the fact that these tumors are resistant to radiation, and that of their 20 patients none had survived five years.

Compression of the Spinal Cord in Paget's Disease.—Several instances of transverse myelitis of varying degrees have been reported. Many of these were associated with kyphosis and vertebral body collapse, others with marked local narrowing of the spinal canal by thickened bone, with little disturbance of its normal curvature. On the other hand, a careful search of the literature has revealed but 3 cases^{11,12,13} with sarcoma of the vertebrae. In each there were malignant tumors in other bones, so that it was difficult to determine which was the primary growth.

Diagnosis.—The clinical pictures presented by our 3 patients had certain common features. All complained of increasingly severe backache, evidence of compression of either the spinal cord or of the cauda equina, and of radiating pains corresponding to more than one spinal nerve. All were over 50 and all showed definite clinical and roentgenologic evidence of osteitis deformans. Essentially the picture was that of an extradural malignant tumor in a patient who was found to be suffering with Paget's disease.

Treatment.—Neither the prevention nor the cure of Paget's disease is known; by the same

token osteogenic sarcoma, which sometimes arises from it, cannot be prevented, and when it does occur, little can be done toward effecting a cure. In long bones, amputation offers slight hope, while in the skull a wide excision is occasionally possible. In the spine, resection is obviously out of the question. These tumors are notoriously resistant to radiation, as has been previously pointed out.



FIG. 9. Case 3. Anteroposterior roentgenogram of pelvis showing changes typical of Paget's disease in the left ilium, ischium, and pubic rami.

Laminectomy may, in certain instances, be worth while. Decompression of the cord can thus be effected, and at the same time one may further relieve pain by dividing any posterior roots which are already encroached upon by the tumor or seem likely to be encroached upon later. Although our small experience does not bear it out, it would appear from the case reports in the literature that cord compression in Paget's disease is usually *not* due to malignant degeneration. This is all the more reason for advising operation, since a prolonged or permanent benefit might be expected under such circumstances. This, indeed, has been the experience of Schwarz and Reback¹⁴ and others.¹⁵

Before recommending surgical intervention in any particular case, it is well to bear in mind that these patients are not the best of operative risks. Osteitis deformans is frequently associated with a marked degree of arteriosclerosis. Furthermore, the affected bones are quite vascular, and bleeding may prove troublesome, whether or not malignancy coexists. In Case 2, a transfusion of whole blood was necessary at the close of the operation.

Summary and Conclusion

Sarcoma may arise from the vertebrae as well as from any other bone affected with osteitis deformans. Compression of the spinal cord and nerves follows quickly. Three such cases (one unconfirmed) are recorded. The first was a chondrosarcoma, the other an osteogenic sarcoma. These tumors, both in our experience and in that of others, are highly malignant. Radiation offers little or nothing, while resection is obviously out of the question. Actually, however, we have found no record of a five-year cure following excision even when the tumor occurred in the skull or long bones.

The spinal cord may be compressed by the buckling of vertebrae softened by osteitis deformans, unassociated with malignant degeneration. Hence laminectomy is often indicated, particularly if there be any doubt regarding the diagnosis. Under such circumstances, very satisfactory relief of symptoms has been known to result. If, on the other hand, a sarcoma is discovered, some temporary benefit may result from decompression and from division of the involved posterior nerve roots. The prognosis in sar-

coma of any bone secondary to Paget's disease is very poor.

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Discussion

Dr. Jefferson Browder, *Brooklyn*—Drs. Campbell and Whitfield have called attention to a rather uncommon lesion which may encroach upon the vertebral canal and eventually implicate the spinal nerves and spinal cord. It is to be recalled that Paget's disease may produce bone changes that result in spinal cord compression without there being a demonstrable neoplastic process. In addition, fractures of the softened vertebrae occur which also have been the causative agent in spinal cord dysfunction. My own experience with Paget's disease implicating the spinal cord is limited to 4 cases. Three of these showed evidence on roentgen ray examination of vertebral body collapse resulting from pathologic fractures, whereas in the fourth instance the pedicles and laminae were sufficiently enlarged to compress the spinal cord. Under these circumstances the problem is rather simple from a therapeutic point of view—namely, wide unroofing of the spinal intradural structures. A rather interesting feature of this lesion is the marked vascularity of the disease and bone encountered at operation. The tumefaction produced by a sarcoma arising from Paget's disease of the vertebrae probably presents a rather difficult situation surgically. Although I have had no such cases, it seems that the best one could expect would be temporary improvement following partial removal of the mass. Drs. Campbell and Whitfield are to be congratulated on their management of the patients in this group.

SCHOOLS TEACH FIRST AID

During the present school term, all seniors in the New York City high schools and vocational schools are receiving Red Cross first aid instruction as a

substitute for the usual fourth-year hygiene course. This step was taken as a war measure so that every family may have first aid training.

MEDICOLEGAL ASPECTS OF TRAUMA AND MALIGNANT TESTIS TUMORS

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THE eternal lure of a single cause and a single cure for tumors has intensified the belief in "traumatic" cancer. Such fallacy has been perpetuated by wishful thinking on the part of the layman, the medical, and the legal professions. In a disease such as testis cancer, where an exposed organ is subject to frequent injury, and which normally accounts for approximately 1 per cent of malignant disease, the incidence would be immensely increased if trauma were a causative factor.

In general, much more sound opinion has been given by medical experts than by legal minds. However, an obvious lack of accurate observation and diagnosis by the first physician consulted is noted in the entire study of cancer of the testis.

The pitfalls in general diagnosis,¹ and in small tumors in particular,² have been discussed previously in detail. It is enlightening that in 150 small testis tumors, 59 were diagnosed as benign scrotal lesions, and only 32 of these were suspected to be tumors. The majority had already metastasized into the abdomen, thorax, or neck. If these difficulties are found in cases not involving litigation, how much more difficult is the problem when real or alleged trauma is involved. Until the early handling of these cases improves in general, little progress will be made in proper diagnosis, adequate treatment, or the equitable settlement of claims.

Baring's excellent monograph,³ written in 1833, is a discussion of this relationship with a viewpoint that is almost modern. On the whole, he concluded that an uncritical attitude existed toward such injuries, and he did not believe in the direct relationship between injury and trauma. He emphasized that "unconscious" trauma was frequent and not usually called to the physician's attention.

In a classic paper concerning the modern attitude toward traumatic cancer, Ewing⁴ laid down sound rules for the investigation of these cases. Both Ewing and Knox⁵ reviewed the literature critically and came to the general conclusion that much early writing was based neither on adequate medical observation nor on sound legal opinion, many reports being merely a "collection of anecdotes!"

The standard medicolegal criteria cannot be too often repeated. They are: (1) authenticity and adequacy of the trauma, (2) previous integrity of the wounded part (traumas reveal more malignant tumors than they cause), (3) origin of tumor at the exact point of injury, (4) reasonable time limit between injury and appearance of the tumor—the continuity of symptoms, and (5) positive diagnosis of presence and nature of tumor.

Histories covering the related sequence of events, with definite time intervals, are extremely rare in the entire cancer literature, and no less so in testis tumors. Several patients with widespread metastases have been examined by Dean,⁶ claiming damages because of testicular injuries received within the preceding three or four weeks. Obviously the primary tumors were present before the injury occurred.

From 1880 to 1939, inclusive, 331 authors reported 649 individual cases of alleged trauma preceding tumor development. No collective reviews are included. Of this total only 15, or 2.4 per cent, were reported as true hematomas or hematoceles associated with tumors. The most obvious mistake is usually the omission of a competent examination prior to employment or war service, or in the course of insurance examinations, in which the scrotum is carefully palpated and definitely noted to be normal. Such examinations are extremely rare.

The histories of tumors developing during or after war service appear to be the only records available for such study. A reasonable assumption can be made that these men were apparently found healthy during induction examinations.

Through the courtesy of Colonel Ash,⁷ Curator of the Army Medical Museum, a survey of all the testis tumor material was made prior to August, 1940. A small number of these cases may be unrelated to active army service. From a total of 142 cases, 25 histories contained references to alleged trauma, giving an incidence of 17 per cent. In two of these cases, Nos. 21 and 25, the alleged injuries were probably sustained to enlarged testes—in other words, to previously existing, symptomless tumors.

The clinical diagnoses in this series of 25 cases were: probable tumor, 13; orchitis and hydrocele, 3 each; kidney tumor (due to metastases), 2; epididymitis, gumma, benign tumor, and appendicitis, 1 each.

In the examination of 21 tumors developing

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

This paper is No. 7 in a series of "Studies in Malignant Testis Tumors."

TABLE 1.—25 CASES FROM THE ARMY MEDICAL MUSEUM, 2 WITH PRE-EXISTING TUMORS

Army Mus No	Age	Side	Duration in Months	Trauma	Diagnosis	Pathology	Result
1. 27080	39	R	24	Saddle	Tumor (?)	Embryonal carcinoma	Died, 7 months
2. 27873	30	R	18		Appendicitis	Teratoma	Laparotomy
3. 29618	30	R	3	Painful, 1 week	Orchitis	Teratoma	Died
4. 29680	34	R	?	Fall from horse	Hydrocele	Teratoma	Died
5. 29773	19	Bilateral	?	Questionable	Tumor (?)	Lymphosarcoma	Died
6. 30596	25	L	?	Kicked by horse	Kidney tumor (?)	Teratoma	Died
7. 30882	32	Bilateral	?	Injury, 1913	Hydrocele	Embryonal carcinoma	Died
8. 31034	30	R	72	Injuries, 1919, 1920	Orchitis	Embryonal carcinoma	Died
9. 31213	39	R	11	Injury (?), 1938	Epididymitis	Teratoma	Died, 18 months
10. 34038	36	R	?	Fall, aged 10, denuded scrotum	Embryonal carcinoma	Embryonal carcinoma	Died, 13 months
11. 34877	39	R	12		Tumor (?)	Embryonal carcinoma	Died, 4 years
12. 37426	33	R	1	Painful	Hydrocele	Embryonal carcinoma	Died, 2 1/2 years
13. 39540	38	R	?	Pain, swelling, 2 weeks	Tumor (?)	Malignant	Died, 2 1/2 years
14. 41938	26	L	1	Volley ball	Tumor (?)	Teratoma	Died
15. 43481	43	L	?		Tumor (?)	Embryonal carcinoma	Died
16. 44319	19	L	?	Strain, lifting	Tumor (?)	Embryonal carcinoma	Died, 16 months
17. 46520	42	L	?	Airplane, painful	Benign (?)	Embryonal carcinoma	Died, 9 months
18. 47148	18	R	?	Painful, 3 weeks	Kidney tumor	Chorioepithelioma	Died
19. 52915	21	R	12		Tumor (?)	Teratoma	Died, 9 months
20. 61011	39	L	?	Fall	Gumma	Teratoma	Died, 3 years
*21. 61174	27	L	12		Orchitis	Chorioepithelioma	Died
22. 62193	28	R	3	Slight	Tumor (?)	Malignant	Alive, 7 months
23. 64485	23	R	?	Saddle	Tumor (?)	Teratoma	Alive, 1 month
24. 65111	23	R	?	Football 1 year	Tumor (?)	Teratoma	Died, 18 months
*25. 65621	23	L	?	Football	Tumor (?)	Unicellular (adenoma?)	

* Two cases of injury to pre-existing tumor

incidental to army and war injuries, it was found that the diagnosis of tumor was made after slight delay. Hematoceles were diagnosed by Lucarelli (1933) and Wuethrich (1936). Two were treated as hernia by Edel (1931) and Heinicke (1935). Pfeiffer (1926) diagnosed tuberculosis, and Ullrichs (1929), atrophy.

Compensation awards were made in the cases of Chimisso (1922) in the Italian army, and Ullrichs (1929), and Wuethrich (1936) in the German army. In the other cases, while no decision was stated, the inference is probable that such awards were made, since only Edel's patient was denied compensation. On careful questioning, Dean completely exposed the lack of alleged trauma directly to the scrotum in two patients who claimed compensation after World War I. In one a rifle butt had struck the inner aspect of the thigh, while the other had been kicked on the buttock by a mule.

Finney, in a study of cancer in the United States Army between 1917 and 1919, found reports of 9 cases, but gave no detailed information. Six of the 21 war reports specifically stated injuries from bayonet wounds, bullets, or shells. The remaining 15 cases were related to general

injuries which could occur in strenuous civil activity.

Differential Diagnosis

The incidence of benign intrascrotal lesions other than tumors is high. The more common are:

(a) Epididymitis. The chronic enlargement of the epididymis, without pain, will usually be due to tuberculosis, residual gonorrheal, or non-specific infection. The true tumors of this organ are almost invariably misdiagnosed as tuberculosis. As there is nothing definitely characteristic about these firm, irregular enlargements, open exploration and epididymectomy are indicated. Beading or induration of the vas is often present, and infections of the prostate and seminal vesicles are usually associated with chronic epididymitis. A most unusual combination of diseases that would tax the ability of the best diagnostician was reported by Wesson⁸ in Case 23. A 39-year-old patient, who had had gonorrhea and syphilis at the age of 25, suffered an alleged injury while riding horseback. A left epididymitis, prostatitis, and seminal vesiculitis, together with an enlarged

TABLE 2.—WAR INJURIES IN 21 CASES WITH PROVED TESTIS CANCER

Author	Year	Age	Side	Duration in Months	Trauma Type	Pathology
Prussian Army 1.	1899	27	R	5	Blow	Round cell sarcoma
2.	1899	21	R	2	Squeeze	Malignant
3.	1899	30	L	7	Kick (horse)	Sarcoma
4.	1903	30	R	6	Squeeze	Sarcoma
5.	1906	22	R	11½	Squeeze	Sarcoma
Finney (U.S.A.)	1921			(discussed 9 cases without detail)		
Chimisso (Italian)	1922	23	R	12	Shell	Malignant
Schanning, No. 32 (Scandinavian)	1922	34	L	2	Bayonet	Chorio
Weinert (German)	1922	25	R	6	Injury	Malignant
Gioia, No. 10 (Italian)	1923	26	L	1½	Injury	Seminoma
Villata (Italian)	1925	24	L	2	Injury	Sarcoma
Pfeiffer, No. 1 (U.S.A.)	1926	28	R	3½	Shrapnel	Teratoma
Berger (French)	1929	46		24	Injury	Seminoma
Ulrichs (German)	1929	27	R	24	Bullet	Seminoma
Romiti No. 1 (Italian)	1930	30	L	36	Fall	Malignant
Edel No. 25 (German)	1931	37	R	36	Injury	Round cell sarcoma
Adelberger (German)	1932	20	L	120	Bullet	Teratoma
Lucarelli, No. 1 (Italian)	1933	20	R	3	Fall (horse)	Teratoma
Giordano No. 13 (Italian)	1935	39	Bilateral	12 + 24	Injury	Seminoma
Heinecke (German)	1935	19	R	24	Squeeze	Seminoma
Wuethrich, No. 2 (German)	1936	25	R	2	Squeeze	Adenocarcinoma
Gordon-Taylor and Till (English)	1938		Bilateral	4	Bomb	Seminoma

testis (7 by 7 by 10 cm.), were present. Right orchidectomy revealed a seminoma of the testis.

(b) Hematocele may occur spontaneously. When it does, acute pain is the rule, and the correct diagnosis can usually be made. Hematocele also frequently follows the tapping of hydrocele. If there is trauma, then the underlying condition is often confused with a pre-existing tumor. There is discoloration of the scrotal skin, and the organ is heavy and solid in consistency. After active bleeding stops, the pain generally subsides. Prompt open operation is indicated, which both establishes the diagnosis and permits the ligation of vessels and evacuation of the blood clot.

Three authors give interesting histories of spontaneous hematocele followed by or coincident with tumor development. These two conditions can coexist, indicating the care necessary in careful differential diagnosis.

Guibe (1908, No. 2): A 25-year-old patient was operated upon for a painful hematocele five months prior to the removal of a seminoma of the right testicle. Two months later a local recurrence was removed and the left testis, which contained a "nodule," was transposed to the right scrotum.

Fayol (1912, No. 2): A 35-year-old patient suffered pain in the right scrotum for three days. Hematocele was diagnosed, together with a bilateral inguinal hernia. Orchidectomy revealed a myxosarcoma (teratoma?).

Contini (1935): A 46-year-old patient had a left varicocele removed when he was 21 years old. Twenty-five years later the right testis became enlarged for a period of four months, when a seminoma associated with hematocele was removed.

A severely traumatized testicle was immediately removed by Dean,⁶ under the probable diagnosis of hematocele. Careful study of the center of the mass showed the presence of early cancer.

The particularly scanty literature on hematocele since 1900 is noteworthy. Only 43 references exist in the English periodical literature from 1799, and since the usual textbook description is very brief, the end-result studies of such cases are practically nil. Considering the great danger of malignant tumors and the common complaint of scrotal injuries to compensation courts, this lack of knowledge of the natural history of hematocele is a serious defect in the accurate judgment of these injuries.

A study of 235 malignant intrascrotal but extratesticular tumors showed that in 41 tumors of the tunica vaginalis, the trauma incidence was 14.5 per cent; in 90 tumors of the epididymis, the incidence was 16.5 per cent, and also 16.5 per cent in 104 tumors of the spermatic cord. It is interesting that this incidence of 15 per cent is about the same as in the testis tumors proper.

The sufficiency of the trauma cannot be doubted in cases where traumatic displacement or forcible luxation of the testis has been described. Twenty such reports are given in reasonable detail. A remarkably long average interval of seventeen years elapsed between this violent trauma and recognized tumor development as stated by the patient. The shortest interval, of 2.5 years, occurred in the teratoid group, while in the unicellular tumors the average interval was 20.5 years. The admitted pre-operative duration was seventeen months. Violence of the trauma is indicated by the fact that 12 were displaced into the abdomen, while the remaining 8 were transposed into the inguinum. The great Thomas Huxley had a similar situation

TABLE 3.—TRAUMA WITH HEMATOMA, HEMATOCELE, AND COINCIDENT CANCER

Author and Year	Age	Side	Trauma	Duration in Months	Pathology
1. Rovsing (1896, No. 1)	31	R	Bicycle	4	Round cell sarcoma
2. Hamonic (1899)	47	L	Fall	7	Medullary carcinoma
3. Grassl (1900, No. 2)	24	R	Falling log	1	Sarcoma
4. Woolfenden (1911)	23	L	Fall	9	Teratoma
5. Schanning (1922, No. 2)	58	L	Fall	3	Sarcoma
6. <i>Ibid.</i> , (No. 11)	59	L	Crowbar	3	Seminoma
7. Amster (1925)	49	L	Blow	1	Carcinoma
8. Dew (1926, No. 9)	28	R	Hammer	1	Teratoma
9. Leroux, <i>et al.</i> (1930)	33	L	Fall	Years	Teratoma
10. Breikopf (1931)	40	R	Bicycle	1 1/2	Adenocarcinoma
11. Venable and Flint (1931)	60	Bilateral	Horseback	R-6 } L-1 }	Adenocarcinoma
12. Lucarelli (1933, No. 1)	20	R	Horseback	3	Teratoma
13. Rosa and Carpinelli (1933)	26	R	Blow	1	Teratoma
14. Wuethrich (1936, No. 1)	27	R	Squeeze	9	Seminoma (large cell carcinoma)
15. Deitermann (1937, No. 18)	40	R	Kick	6	Seminoma
16. Grevillius (1937, D-24)	25	R	Bicycle	Years	Teratoma

in mind when he said, "The greatest tragedy of science—the slaying of a beautiful hypothesis by an ugly fact."

These unusually long intervals, especially in the unicellular group, would indicate the general unimportance of injuries as direct predisposing causes of cancer development. In another series of 20 cases where the testis was surgically replaced into the abdomen, when scrotal fixation was impossible, or during hernia operations, the average time interval between displacement and recognition of the tumor was eleven years.

Congenital displacement or inguinal ectopy shows a significantly higher percentage of alleged traumatic injuries. Compared with the average trauma incidence in scrotal tumors, of 15 per cent, the incidence was as follows: 259 unicellular tumors, 17 per cent; 56 teratoid tumors, 38 per cent, and 32 cases diagnosed merely as malignant tumors, 27 per cent.

Under present compensation law procedure, it is most difficult to obtain an unbiased opinion from the injured workmen or from the family doctor, both of whom are well aware of the medicolegal-financial possibilities. Wesson⁹ has aptly stated that trauma is an eagerly remembered coincidence, and its relationship has been accepted through politeness.

Fifteen cases could be found in over 5,500 individual reports where testes were known to be enlarged prior to injury. The interval varied from a few months to many years. The injuries in these cases merely brought the patient to medical examination and corroborated Ewing's opinion that trauma discloses more tumors than it produces.

Increased enlargement of the testis following injury was definitely stated in the cases of Army Medical Museum No. 61174 by Lefort, Villar, Edel, and Deitermann. The comparison of such cases with those *without* injuries is not possible, as nontraumatized organs often take on an unexplained rapid growth.

Through the courtesy of Dr. C. W. Woodall,¹⁰ the report of an interesting problem in diagnosis and jurisprudence is cited:

Case Reports

F. L., a 34-year-old patient, was first examined by another surgeon in June, 1936. He admitted having had some discomfort in the left testicle three months prior to an automobile accident on May 3, 1936, but the testis did not become enlarged until after the accident. The day following the accident he was examined by his family doctor for possible hernia, and no enlargement of the testis was noted. Within six weeks a solid, hard, opaque, painless mass "the size of a small orange" had replaced the left testis. A left orchidectomy, performed on June 17, 1936, revealed an embryonal carcinoma 9 cm. in diameter. The patient received 8 roentgen ray treatments in eighteen days, for a total of about 3,619 roentgens, but nevertheless he developed metastases in the left cervical region and retroperitoneal space, and died on January 8, 1937.

As the result of the automobile accident and alleged trauma to the scrotum, the case came to court. Negligence was ruled and no compensation was allowed. Diverse testimony was given, both that the tumor was caused by the accident and that injury aggravated a pre-existing tumor. Since immediate examination following the alleged injury showed no evidence of recent scrotal trauma, the testimony was entirely against the evidence that trauma caused the tumor growth. The fact that a general practitioner, examining this patient shortly after the accident, failed to note the enlarged testicle, is noteworthy, especially since the patient admitted to the surgeon enlargement of the testis for three months prior to the alleged accident.

A large industry in Schenectady has been confronted only twice in the last ten years with the problem of testis tumors developing in employees. The record of one is referred to here in abstract and discloses the usual dilemma on the part of

TABLE 4.—INTERVALS FROM ONSET OF PRE-EXISTING TUMOR TO ALLEGED TRAUMA

Author	Year	Age	Side	Previous Interval in Months	Trauma—Interval	Trauma—Type	Pathology
1. Army Medical Museum, No. 61174	....	27	L	12	6	?	Chorioepithelioma
2. Army Medical Museum, No. 65621	....	23	L	Testis enlarged	previous to	football accident	Unicellular (adrenal?)
3. Lefort	1866	21	R	15	3	?	Cystic
4. Marsh	1887	25	L	Always larger	3 1/2	?	Sarcoma
5. Villar	1902	48	L	36	2	?	Epithelioma
6. Howard	1907	37	?	30 years	Short	?	Malignant
7. St. Thomas Hosp. Rep. No. 26	1912	25	R	4	1 week	?	Round cell sarcoma
8. Kraus, No. 2	1914	37	R	8	1 week	Painful	Sarcoma
9. Edel, No. 23	1931	20	L	Always larger	6	Squeeze (bi-cycle)	Cystic
10. Granatowicz, No. 10	1933	43	L	Prior	15	Kick	Seminoma
11. Fortner and Owen, No. 2	1935	40	L	5	4	Fall	Chorioepithelioma
12. Wuehrich, No. 1	1936	27	R	1	1 week	Squeeze produced hematocele	Seminoma
13. Deitermann, No. 16	1937	32	L	9	Followed	Contusion	Seminoma
14. Mcray and Frazier	1937	29	R	21	2 weeks	?	Teratoma
15. Fawcett, No. 4	1938	37	R	18	36	Repeated	Embryonal

the patient, who believed that a fall and injury to the right knee was associated with a large tumor, evidently of long standing, in the right testis. No evidence of recent scrotal injury was determined. As Wesson* has already ably pointed out, the scrotal lesions commonly observed are usually epididymitis, secondary to infections of the prostate and seminal vesicles or distant foci.

T. D., a 57-year-old Italian laborer, received an alleged injury to his right leg, when a piece of falling steel broke a plank on which he was standing, in November, 1941, a few days prior to urologic examination. The day after the accident examination disclosed no obvious injury to the knee, but an irregularly enlarged, slightly tender, right epididymis was found, and a suspensory was recommended. Tenderness persisted, and the growth increased slightly in size until February, when a diagnosis of probable tumor was made. Orchidectomy revealed an irregular mass, mainly in the epididymal region, measuring 4 by 5 by 8.5 cm., and proving to be embryonal carcinoma with lymphoid stroma. Aschheim-Zondek reactions after operation were negative, and prophylactic irradiation was instituted.

A review of 21 medicolegal records from the personal files of Dr. Ewing¹¹ showed the appallingly high incidence of 25 per cent of misdiagnoses, and two cases proved not to be tumors at all, but gumma and hematocele instead.

Of 19 cases, the following diseases were originally diagnosed: probable tumor, 5; orchitis, 3; hematocele and hydrocele, 2 each; torsion, hernia, lumbago, appendicitis, and abdominal tumor, 1 each. No clinical diagnosis was recorded in 2 other cases. The original diagnosis was correct in only 25 per cent of the cases in this series. Diagnosis of other scrotal lesions was made in 9 cases, while in 3 others distant metastases clouded the correct diagnosis of testis cancer.

Ewing accepted a possible relation between the trauma and accelerated tumor growth in 4 cases. In 3 others the time interval was considered too short to be of etiological significance. In 4 instances the trauma apparently called attention to the pre-existing tumor, and in the remainder there was considered no possible relationship whatsoever.

The analysis of the end result of the personal records of Dr. Ewing was practically impossible, mainly because the originals were submitted by 13 different insurance companies or law firms. The general lack of accessible material on this subject is due to wide variations in the present compensation laws, and the lack of compilation and analysis of cases reviewed. This complexity is evidenced by the fact that no centralized bureau exists for sorting such information.

This unfortunate situation is well described by W. J. Nunan, who stated that "more than 40 of the States in the Union have compensation acts. These are all administered by different State bodies, some of which maintain statistical divisions and some of which do not. In addition, the Territories of Hawaii, Alaska, and Puerto Rico have their own compensation laws. There is also a Federal Employees Compensation Act and a Federal Compensation Law for Longshoremen and Harbor Workers. Both of these latter acts are administered by the United States Employees Compensation Commission. I do not know of any centralized authority which controls statistics dealing with cases arising under all of these different jurisdictions."¹²

Moritz¹³ recently recommended that medical schools should exert their influence in behalf of legislation which will insure that medicolegal investigations shall become the responsibility of properly qualified persons; that such persons shall be given proper statutory authority for the conduct of scientific investigations; and that

adequate financial support be given to insure the necessary matériel and supporting personnel.

Two personal cases are included, which illustrate the difficulties and pitfalls in reasoning where no compensation was involved. Trauma to the first patient was violent, but tumor developed six years later in the opposite testis, while in the second patient violent strain was apparently followed by rapid tumor growth.

N. H., a 33-year-old laborer was examined April 3, 1936, for low left-sided abdominal pain of one month's duration. In July, 1928, he had received a severe kick in the right scrotum during athletic maneuvers, followed by severe right inguinal and abdominal pain for two hours but without evidence of scrotal hemorrhage. The apparently normal right testicle was forcibly dislocated into the upper inguinal canal. In September, 1934, he noted a gradual, painless, firm enlargement of the left testis. Orchidectomy performed in May, 1935, disclosed an embryonal carcinoma with lymphoid stroma. The small, atrophic, right testicle was placed by orchidopexy into the left scrotum after removal of the tumor. Postoperative roentgen-ray therapy was carried out, but the patient died of diffuse metastases on October 19, 1936.

J. S., a 27-year-old engineer, was examined by me for the first time in March, 1935, for injury to the left scrotum when he fell on an icy sidewalk November 20, 1933. About five hours after the accident he had severe pain in the left testis, lasting about 45 minutes, which gradually subsided after rest, and during the following ten days he noted a painless enlargement of this testis. A physician, consulted in early December, advised a scrotal support, apparently on a diagnosis of simple contusion. Four days later another physician concurred with this diagnosis and treated the testis with hot packs and drugs given by mouth. In January, 1934, a urologist made a diagnosis of tumor, and orchidectomy revealed a teratoma 6.5 by 6.5 cm. Prophylactic irradiation was administered, and the patient has remained alive and well for eight years after operation.

In this patient, an ordinary fall resulting in a twisting strain and trauma to the scrotum was without external evidence of tissue damage. Pain was delayed several hours, and gradual growth followed, which was misdiagnosed twice before urological consultation revealed the presence of tumor. No question of compensation was involved, but the possibilities of litigation in such a case under ordinary employment would be great.

Summary

Only individual, detailed reports can serve to clarify the complex relation of trauma to cancer. The citation of collective studies are without value, and such figures are generally

misleading. Individual tumor case records presented in this study consist of:

1. Army Medical Museum—25 cases (Table 1), 2 with trauma to pre-existing tumors.

2. Personal medicolegal records of Dr. James Ewing—21 cases, 19 of tumors which have been proved cancer.

3. Records from 6 armies, which disclosed 21 tumors related to war service (Table 2). Nine others from the U.S. Army are mentioned, but without detail.

4. Trauma producing proved hematocele and testis tumors—16 cases (Table 3). Three others demonstrate the possibility of spontaneous hematocele with tumor.

5. Industrial injuries are briefly discussed, with a personal report of a case.

6. Summary of 20 cases (separately listed elsewhere) which followed traumatic displacement or complete luxation.

7. The admitted presence of tumors prior to injury as recorded in 15 cases (Table 4).

8. Two personal reports illustrating the misleading features of alleged trauma in noncompensation cases.

In the study of scrotal cancer cases, a general incidence of alleged trauma was approximately 15 per cent. Ectopic inguinal tumors were associated with a much higher figure of 27 per cent.

Twenty-one tumors developed in soldiers of different countries, as result of either service or war injuries, and are recorded in detail. The assumption is made that reasonably adequate examinations were made prior to induction. This group may be considered as a control series. A diagnosis was made shortly after injury in most cases, and the patients were later kept under observation. In only one instance was the claim disallowed.

Correct diagnosis is generally difficult. All known benign intrascrotal conditions have been confused with tumors, and even metastases have been operated upon without the proper recognition of the site of primary tumor. Epididymitis and hematocele are the most confusing conditions to be considered. Hematocele following trauma has been reported with malignant tumors sixteen times, while 3 spontaneous hematoceles with tumor are recorded.

The proved sufficiency of trauma with luxation of testis is recorded in 20 cases. The mean intervals from trauma to tumor development varied greatly, from 2.5 years in the teratoid tumors, to 20.5 years in the unicellular tumors.

A total of 235 intrascrotal, but extratesticular tumors of the epididymis, tunica vaginalis, and spermatic cord disclose an alleged trauma incidence of 15 per cent.

Tumors existing prior to injury were reported fifteen times. Pre-existing enlargement of the testis can be determined only be painstaking histories of the sequence of events.

Diverse medicolegal opinions here and abroad come to a general conclusion that trauma does not induce tumor growth, and have proved instead that direct violent injury may accelerate growth of tumors already present.

Finally, a plea is made for: (1) better written and edited medical reports in the literature; (2) a centralized medicolegal museum of complete historical data, x-ray films, and specimens of cancer cases associated with alleged trauma; (3) institution of a urological testis cancer registry, similar to the existing bladder and kidney tumor registries.

Conclusions

Trauma does not cause cancer, but may accelerate its course. Exact diagnosis, being difficult,

is not often made by the first examiner. Litigation cases in general have been inadequately examined and reported, and claims have been settled on the basis of sympathy, not science. From available printed records no conclusions can be drawn between the etiological relationship of trauma and testis cancer, but all present evidence is against this assumption.

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PREVENTION OF BLINDNESS IN LATIN AMERICA

There are between 180,000 and 240,000 blind persons in the twenty Latin American countries, it is estimated by Dr. Moacyr E. Alvaro, of Sao Paulo, Brazil, in a report published here by the National Society for the Prevention of Blindness. Dr. Alvaro is Secretary-General of the Brazilian National Committee for the Prevention of Blindness and Secretary-General of the Pan-American Congress of Ophthalmology.

Describing Latin American developments in the prevention of blindness, Dr. Alvaro says that active efforts for protection of eyesight and the conservation of vision are now under way in many of the Central and South American countries, and there is increased interest in the possibilities for saving eyesight through legislation and public education along the lines which have been successful in the United States.

"In the last fifteen or twenty years," the report states, "a number of committees for the prevention of blindness have been formed in the various Latin American countries Some of these agencies for prevention of blindness in South America have brought about the establishment of routine examination of the eyes of school children, measures for the protection of workers from ac-

cidents in industry, better medical care for eye patients, and legislation to make compulsory the use of a prophylactic solution in the eyes of infants as a safeguard against ophthalmia neonatorum.

"Regarding indirect measures . . . substantial progress has been made or is being made in campaigns against syphilitic, gonococcal, and tuberculous infections, in general measures against communicable diseases, better industrial hygiene, multiplication of local health agencies, improvement of housing conditions and nutrition habits, better facilities for the care of the sick, higher educational standards, etc. In spite of all these improvements, however, the problem of conservation of sight in Latin America is far from being solved. . . .

"A great problem in Latin America is the fact that there are only 1,000 ophthalmologists scattered over the whole area to give their services to a population of 120,000,000 people. This number, small in itself, is relatively still smaller when the difficulties in transportation have to be taken into consideration. The improvement of facilities for training good eye specialists or for imparting good ophthalmologic knowledge to general practitioners is highly important."

MILKING MACHINE DEvised FOR MICE

A milking machine for mice is being used at the National Institute of Cancer Research at Bethesda, Maryland. But it is not because of the labor shortage in this case; there is just no one who has

hands small enough for milking a mouse. The Institute is studying the transmission of cancer through milk. A mouse gives about one-fourth thimbleful of milk per day.—*Mississippi Doctor*

DIAGNOSIS AND TREATMENT OF OBSTRUCTIVE JAUNDICE

JOHN D. STEWART, M.D., Buffalo

FIVE or six years ago the postoperative mortality rate in obstructive jaundice, as reported from various clinics, was excessively high. Palliative operation for carcinomatous biliary obstruction entailed a risk of 35 to 50 per cent, and in persistent calculous jaundice the postoperative mortality figures ranged from 10 to 30 per cent. Patients with protracted biliary obstruction of high degree, which is the group my remarks are concerned with, are as a rule middle-aged or elderly, and show a high incidence of associated diseases, such as cardiovascular degeneration, nephritis, diabetes, and obesity. Biliary infection is usually present, even though such outspoken signs as chills, fever, pain, and tenderness may be lacking. Hepatic and renal impairment and multiple nutritional deficiencies are part of the picture. Lack in specific nutritional factors, such as carbohydrate, protein, vitamin A, and vitamin C, has been shown to be of common occurrence in this group of patients.

Largely as the result of quickened interest in preoperative and postoperative care during the past few years, a sharp improvement in the results of operation for obstructive jaundice has been brought about. For example, at the Massachusetts General Hospital since 1938 the postoperative mortality rate in cancerous biliary obstruction has dropped from 50 per cent to 17 per cent, while in calculous biliary obstruction a lowering from 15.8 to 5.7 per cent has resulted. Similar figures are being reported from other large clinics and in general indicate a reduction in operative risk of from one-third to one-half. I should like to emphasize the fact that this remarkable advance in a difficult field of surgery is not attributable solely to the introduction of vitamin K, for there is a tendency to overlook the less dramatic importance of other factors. The disturbances in obstructive jaundice are various and complex, and the surgeon must not suppose that the use of vitamin K is enough to convert a dangerous operation into a safe one.

Diagnosis

Jaundice can be simply and usefully classified as hemolytic, hepatogenous, or obstructive in origin. Hemolytic jaundice usually presents no diagnostic difficulties, though it must be remem-

bered that pigment stones may be formed in the biliary tract in chronic hemolytic jaundice and may produce obstruction. The lesions producing obstructive jaundice in order of frequency are gallstones, carcinoma, and traumatic stricture, and a rare additional cause is chronic pancreatitis, involving the region of the common duct papilla.

In my experience the diagnosis can be made with assurance in about 90 per cent of the cases. However, the unusual case of either hepatogenous or obstructive jaundice may baffle the most experienced clinician. The necessity for performing exploratory laparotomy in such instances should be recognized, and the operation should not be postponed indefinitely while inconclusive tests are being performed. Arbitrary rules are undesirable, but I believe clinical experience justifies the view that the patient who has jaundice of undetermined origin should be prepared for operation by the end of the fourth week in the hospital, unless the jaundice is rapidly subsiding at that time. The risk of delay in calculous or neoplastic obstruction, as from ascending infection and irreversible changes in liver and kidneys, is of more significance in the long run than is the danger of carefully performed operation in chronic hepatitis.

In the diagnosis of obstructive jaundice evidence simply obtained at the bedside is of paramount importance. Characteristically in calculous jaundice the patient is a middle-aged, obese woman who gives a history of chronic dyspepsia or bouts of pain and soreness in the right hypochondrium. In the series of cases forming the basis for this discussion, elevation of oral temperature above 100 F. was present in half the cases, and pain of varying severity was noticed in 75 per cent of the cases. One-quarter of the patients with calculous jaundice had little or no pain, and therefore had jaundice due to silent stone in the common duct. Likewise, in about one-quarter of the cases the block produced by stone was complete enough to result in clay-colored stools. The urine is deeply colored with bile pigment. Itching is present in half the cases, being less common than in obstruction caused by carcinoma. Typical findings on physical examination are jaundice of orange hue rather than the darker, almost mahogany color of the patient with protracted carcinomatous jaundice; tenderness in the right hypochondrium or epigastrium and absence of abdominal masses are the rule. The gallbladder, spleen, and liver usually cannot be felt. Anemia and

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942.

From the Department of Surgery of the University of Buffalo Medical School and the Edward J. Meyer Memorial Hospital, Buffalo.

peripheral edema are unusual and when present indicate liver damage and malnutrition.

The patient with cancerous biliary obstruction is typically a middle-aged or elderly man who has obviously lost much weight. A history can usually be obtained of indefinite ill-health and loss of appetite and strength over a period of several months before the onset of jaundice. Pain is complained of in half the cases and, contrary to usual belief, is occasionally severe enough to require hypodermic medication. The pain is not well localized and may be referred to the left upper abdomen and upper lumbar region. Pruritus is severe and the obstruction to bile flow is commonly complete, so that the stools are persistently clay-colored. Occasionally, however, carcinoma of the head of the pancreas may produce partial block, with mild jaundice and some color in the stools, especially when associated cholangitis and hepatitis are a part of the picture. Fever has been present in over one-third of the patients whom I have seen and indicates a secondary cholangitis. The liver is usually enlarged and palpable; the spleen is not. Unless covered over by an enlarged right hepatic lobe, the gallbladder is distended and palpable. In my series of cases the gallbladder was enlarged in 53 of 65 cases, while stones in the common duct produced enlargement and jaundice (that is, exception to Courvoisier's law) in only 3 out of 62 cases. Anemia and peripheral edema are not uncommon in the patient with carcinomatous biliary obstruction and denote severe malnutrition and liver damage.

In certain cases of toxic or infectious hepatitis, as pointed out above, the clinical picture may be indistinguishable from that of calculous obstructive jaundice. In these cases it is important to search carefully for history of exposure to hepatotoxic agents, including alcohol, cinchophen, phosphorus, and carbon tetrachloride. Enlargement of the spleen and absence of pain, fever, and upper abdominal tenderness are more characteristic of hepatitis than of calculous jaundice.

Stricture of the common duct is usually of traumatic origin, and a history is obtained of previous cholecystectomy during which technical difficulties were encountered, particularly in regard to hemostasis. Drainage of bile from the wound and jaundice appear together or alternately soon afterward. Fever and pain denote the presence of secondary cholangitis and hepatitis. In many instances the stricture is partial, and variable amounts of bile gain access to the intestine. The recurring bouts of biliary infection superimposed on persistent obstruction to bile flow eventuate in biliary cirrhosis, hepatic enlargement, and splenomegaly.

External biliary fistula following operation on the biliary tree may be due to residual stone in the common duct, neoplastic obstruction, traumatic stricture, or a combination of these lesions.

Helpful laboratory data which may be regarded as routinely desirable include prothrombin time before and after administration of vitamin K, concentration in the serum of bilirubin, albumin, and globulin, nonprotein nitrogen, and total and free cholesterol. The stools should be repeatedly examined for bile and occult blood. X-ray study of the gastrointestinal tract is occasionally of value in demonstrating unsuspected primary malignant growth, or neoplastic expansion and distortion of the duodenal loop, but unless bile is escaping freely into the intestine, cholecystography is likely to be a waste of time. If bile flow is only partially blocked, information of diagnostic significance may be obtained from duodenal drainage and examination of the centrifuged sediment microscopically for crystals of cholesterol and calcium bilirubinate. I have seen this procedure prove valuable in the difficult problem of distinguishing between incomplete painless obstruction due to stone and persistent hepatogenous jaundice. Peritoneoscopy has proved disappointing, in my experience, as a diagnostic aid in jaundice.

Liver function tests will not be discussed except to remind you that such measurements usually indicate depression of one or more of the physiologic activities of the liver, and do not identify the cause. However, knowledge of the extent of hepatic impairment is of importance in the management of the case and when added to the rest of the clinical evidence may aid in the diagnosis. On the whole the findings in the history, physical examination, and routine study of stools and urine help us most. The aggregate of the evidence is important, and if we total values from different sources separately, inconclusive mistakes can almost always be avoided.

Preoperative Care

When a jaundiced patient enters the hospital, preoperative therapeutic measures should be started at once and carried out while laboratory studies are being made, for no matter whether the jaundice is hepatogenous or obstructive in origin the same regimen is helpful. Dehydration is corrected by infusions of salt solution. A high carbohydrate, moderate protein, low fat diet is prescribed, and a record of daily food intake is posted. If the patient is unable to take at least 300 Gm. of carbohydrate daily, infusions of 10 per cent glucose solution are given. There is some evidence that the proteins of milk and eggs may be beneficial in liver disease, rather than harmful, as formerly thought. I have given

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Two-stage operation in the palliative treatment of carcinomatous biliary obstruction does not seem to me a rational procedure, although some reduction in immediate postoperative mortality rate may be effected thereby. In anastomosing the gallbladder to the stomach, duodenum, or jejunum, care should be taken to make the opening large enough, preferably not less than 2 cm. in size. Allowance is thus made for shrinkage in healing and for the fact that an overlooked coincidental gallstone may become impacted in the anastomosis. In 14 per cent of cases of cancerous biliary obstruction gallstones are also present. I have not used any of the proposed methods of making a valvular cholecysto-gastrostomy, as such technic has seemed to me elaborate and of questionable applicability. When the jejunal mesentery is sufficiently long, cholecysto-jejunostomy, and distal jejuno-jejunostomy may be performed, as proposed by Monprofit and recently revived by Whipple in the two-stage excision of carcinoma of the head of the pancreas. This arrangement provides free drainage of the biliary tree and possibly lessens the danger of ascending cholangitis from the peristaltic injection of food and bacteria into the gallbladder.

Occasionally we hear a note of pessimism as to the surgical treatment of cancerous obstruction of the biliary tract. In my opinion such an attitude is to be strongly condemned. I believe that every patient suspected of having carcinomatous biliary obstruction should be operated upon unless the patient is moribund, and for the following reasons:

1. The diagnosis can never be certain until proved at operation or autopsy. Painless stone or obstructing pancreatitis will be found now and again in a patient who might otherwise have been abandoned.

2. The palliative value of cholecysto-gastrostomy, and if there is duodenal obstruction also, gastro-enterostomy, is of real importance. Relief of itching alone justifies the operation.

3. Every cancer of the bile ducts or pancreas is to be considered as surgically removable until proved otherwise at laparotomy. Whipple has played a leading part in stimulating the interest of surgeons in what used to be an invariable hopeless lesion, and an increasing number of cases of radical extirpation of carcinoma of the head of the pancreas are being reported.

In the severely depleted case of obstructive jaundice, jejunostomy at the time of operation on the biliary tree is occasionally indicated. By this means after-care is greatly simplified. Carbohydrate, protein, vitamins, minerals, and fluid can be given in adequate quantity beginning immediately after operation and without de-

pendence upon veins which may have been thrombosed from repeated venipunctures and infusions.

The special technical problems presented by stricture of the common duct will not be dealt with, as much time would be needed. I should like to point out to you, however, that repair over a vitallium tube, as introduced by Pearse, of Rochester, is being successfully used in a number of clinics. The disadvantages of using a rubber catheter for this purpose are well known.

Postoperative Care

Following operation, oxygen therapy, preferably administered by means of an oxygen tent, is in order for 24 to 48 hours, both because of the respiratory embarrassment resulting from extensive upper abdominal operation in an enfeebled patient, and because of possible diminished arterial blood oxygen saturation in liver disease. High carbohydrate, moderate protein diet is resumed as soon as possible, and meanwhile glucose infusions are given generously. Salt solution should be given sparingly, because edema and oliguria are to be avoided, and salt solution tends to be retained in the body. It has been shown that a postoperative drop in prothrombin concentration of 20 to 30 per cent occurs within the first 48 hours after operation, and it is therefore important to continue the daily administration of vitamin K without interruption. In most instances, vitamin K should be given for at least two weeks after release of biliary obstruction. Even though bile flow into the intestine is re-established immediately, biochemical analyses show that bile formed by the recently decompressed liver is deficient in bile salts.

Experimental evidence on the point is inconclusive, but I believe that the daily intake of one to two Gm. of bile salts following relief of biliary obstruction is a helpful measure, and may increase the rate of elimination of retained pigment. The practice of refeeding nauseating infected bile is to be avoided, particularly since such bile may be low in its content of the essential cholic acid, and since cholic acid derivatives can be so easily taken in tablet or capsule form.

It should be kept in mind that large amounts of fluid and electrolyte may be lost through the common duct drainage catheter following operation. After release of obstruction the damaged liver not infrequently forms a copious dilute bile. As much as 1,700 cc. daily may drain from the common duct catheter in some instances of postoperative choleremia. The patient should be given an equal amount of physiologic salt solution to repair such losses. McDonald, of St. Catherine's, recommends postoperative perfusion of the biliary tree with warm physiologic

infusions of amino acid solutions before and after operation for obstructive jaundice with results which have been entirely satisfactory to date. In this manner the elements essential in protein metabolism can be supplied in large amount and without reaction. Reduced concentration of plasma protein, peripheral edema, and anemia are indications for plasma or whole blood transfusions. A blood transfusion is routinely given at the time of operation, however, and in most cases preliminary transfusion has not been necessary. Vitamins A, B complex, C, and K are given orally or parenterally. If these are given orally 1 to 2 Gm. of bile salts should also be given to facilitate absorption of the fat-soluble elements, A and K. Adequate amounts of certain members of the B group, and vitamins A, C, and K can be given parenterally to the patient who is vomiting or uncooperative. As little sedative as possible should be given, for undesirable depression may result from morphine or the barbiturates when liver function is severely impaired. In the control of pain from stone in the common duct, however, morphine is often necessary.

A question of considerable interest is, shall we give sulfonamide drugs to the patient with obstructive jaundice and coexisting infection? Cholangitis, cholecystitis, postoperative pneumonia, or wound infection in the jaundiced patient may raise the indication for chemotherapy. The sulfonamide drugs are known to exert a toxic action on the liver, and their use in obstructive jaundice may increase hepatic or renal impairment. However, my practice has been to use these agents despite liver damage if indicated, and so far I have seen no ill effects. There is some reason to believe that adequate intake of fluid and protein has value in the protection of the liver and kidneys from the sulfonamide drugs, and therapy is directed accordingly.

How long should preparation for operation in the case of obstructive jaundice require? Does evidence of cholangitis, such as fever, or fever and chills, mean that operation should be done earlier, or that it should be postponed? In most cases a preoperative regimen lasting from one to two weeks is in order, and unless the jaundice is then rapidly subsiding, the surgeon should proceed with the operation. The presence of signs of biliary infection, in my opinion, calls for earlier operation. Suppurative cholangitis and liver abscesses are fatal complications, the best preventive of which may be free drainage of the common duct. We can all recall cases in which cholangitis, fever, and chills subsided immediately after removal of stone from the common duct and drainage, or anastomosis of

gallbladder to stomach or duodenum for carcinoma of the head of the pancreas.

Operative Technic

There is difference of opinion about the choice of anesthetic agent in operation for obstructive jaundice. I have found ether anesthesia as administered in an oxygen-rich mixture entirely satisfactory in these cases, as it ensures quiet breathing, adequate relaxation, good oxygenation, and minimal disturbances in cardiovascular dynamics and liver function. The administration must be skillfully done, however, or the advantages of the method may be lost. Spinal anesthesia is satisfactory except for the depression in blood pressure that it not infrequently produces. Even though the period of hypotension be brief there is danger of thrombosis of cerebral, coronary, or renal vessels in the elderly arteriosclerotic patient. It has also been shown that reduction in blood flow to the liver impairs the ability of the liver to withstand trauma, a factor of possible importance when hepatic function is already badly crippled.

I have inclined more and more to the use of the transverse or oblique rather than the vertical paramedian incision in operations on the biliary tree, as I believe the latter incision is more embarrassing to respiration and is less suitable for drainage. In my opinion there is a definite place for two-stage operation in the occasional case of calculous jaundice with cholangitis and severe liver damage. At the first operation the gallbladder or common duct can be drained under local anesthesia, the final cholecystectomy and clean-out of the ducts being deferred until jaundice and infection have subsided. In operating for obstructive jaundice, the gallbladder should never be removed until the common duct and papilla have been carefully explored. A frequent mistake in common duct surgery is to open the duct too high, thereby making it difficult to remove stones from the lower end and to verify the patency of the papilla. If the duodenum be mobilized, by freeing its lateral peritoneal attachments this difficulty can be avoided. In about one-quarter of the cases of severe calculous jaundice I have considered it necessary to explore the papilla transduodenally, and I have found no reason to regret this. Allen, of Boston, stresses the value of graduated gentle dilatation of the papilla of Vater by means of acorn-tipped sounds, a method which I have used with satisfaction. Some surgeons, including Mixer, of Boston, and Smith, of Buffalo, find cholangiography at the operating table a useful maneuver, but I have had no personal experience with the method.

REDUCED TEMPERATURE TREATMENT FOR BURNS AND FROST-BITE

FREDERICK M. ALLEN, M.D., LYMAN WEEKS CROSSMAN, M.D., F.A.C.S., and
FRANK K. SAFFORD, JR., M.D., New York City

THE feasibility of superficial anesthesia applied with cold and without a tourniquet was illustrated by a case in our early experience in City Hospital in which a skin graft was removed from the abdomen. Mock¹ has reported a series of such cases and recommends the method for skin grafts.

A burn is the commonest form of trauma of such a superficial character that treatment with cold is not limited to the limbs but can be easily and effectively applied in any part of the body. Frost-bite and burns are identical from this standpoint. Other authors who have had more plentiful opportunities have preceded us in recommending reduced temperature for the treatment of frost-bite, "trench foot," and other forms of injury from exposure to cold. Our studies of burns could have advanced more rapidly except for the fact that in this locality most of these cases are sent to other institutions. In the beginning we thought that we were pioneers with a new procedure, but prior observations by others have now come to our notice.

Our general papers on refrigeration elicited correspondence with a layman, Mr. R. E. Gardiner, of Brisbane, Australia, whose position had given him intelligent acquaintance over a number of years with the treatment of burns. He described very marked relief of pain and all other consequences by immersion in ice water, for localized treatment and also for generalized therapy, as in one case of a man who fell into a vat of boiling molasses.

Priority in scientific evidence for cryotherapy in burns evidently belongs to Temple Fay, this being one of several phases of his work which have not received deserved attention. In a recent letter, Fay² states that the reduced temperature "controls pain, prevents infection, diminishes shock, and decreases loss of serum. In addition, the scar that is formed is pliable and soft, rather than hard and firm."

Another letter from Major Roswell K. Brown made reference to the experiments of Elman, Cox, Lischer, and Mueller³ showing that rats made the best recovery from extensive burns when they were kept in an environmental temperature of 75 F., and that the mortality was increased by either raising the temperature to 99 F. or lowering it to 55 F.

Modification of the systemic temperature, as done by Fay, or of the environmental tempera-

ture in the rat experiments, differs from our procedure, which consists in cooling the burned areas while keeping the systemic temperature normal. Perhaps our work, therefore, may still be new in this respect, although the question of the optimum level of rectal temperature remains open, including the possibility that extensive burns may be best treated by a combination of the two methods. The high incidence of burns in war is the reason for making this small but encouraging report of the experience with local refrigeration to date.

The usual treatment in this Hospital includes thorough and gentle cleansing of the area, then sprinkling with sulfadiazine powder, followed by the application of vaseline gauze. Pressure bandaging may be used, but the need seems to be diminished by cold. For treatment with cold, the dressings are made very light, with only one or two thicknesses of gauze with ice bags outside. The electrical refrigerating equipment,* however, gives a more convenient, constant, and dependable effect, with minimum weight. Occasionally we are also trying the use of the cold chamber of this apparatus without dressings. One advantage of the use of cold in general is that it does not interfere with any of the usual treatments of burns but can be used in combination with them.

The first three cases in this series are from the service of Dr. Isidor Kross, whom we wish to thank for his cooperation and for the privilege of this publication.

Case Reports

Case 1.—A janitor, aged 54, sustained second and third degree burns of the entire face and hands in a gas explosion. After the usual débridement and the use of sulfadiazine and vaseline gauze, the burned surfaces were covered with ice bags. The swelling of the face, so great that the eyes could not be opened, subsided rapidly during the first twenty-four and forty-eight hours. On admission morphine was required to quiet the patient and to deaden his pain, but the relief with ice was such that no more sedatives were needed after the first dose. The ice was gradually withdrawn during the first week. Healing was complete within two to three weeks, without complications and without skin grafts.

Case 2.—A laborer, aged 55, was burned by accidentally dipping his right hand and forearm into a pail of scalding water. The entire burned surface was red and covered with blebs. The usual treatment was applied, with a pressure bandage over wet

* Supplied by the Therm-O-Rite Products Co., Buffalo.

salt solution through the common duct catheter, having in mind not only mechanical cleansing of the ducts, but also the possible beneficial effects of heat on liver function.

When should the common duct catheter be removed? My practice is to remove it only after the jaundice has cleared. Invariably before the catheter is removed, cholangiograms are made under fluoroscopic control, to demonstrate beyond doubt the absence of obstruction and the condition of the biliary tree.

Conclusions

1. The postoperative mortality rate in patients with obstructive jaundice has been sharply re-

duced in the past few years, largely as the result of improvement in preoperative and postoperative care.

2. The diagnosis can usually be made with assurance on the basis of bedside evidence.

3. When the cause of jaundice is uncertain, early exploratory laparotomy by a competent surgeon should be done.

4. Palliative operation in carcinomatous biliary obstruction is of real value, and the surgeon experienced in biliary tract surgery should be alert in every case for the possibility of excising the growth.

VENEREAL DISEASE THREATENS MANPOWER

"While the fight against the venereal diseases is going better in the present war than it did in the first World War, it is not going well enough, and the loss to the armed forces will be colossal unless civilians do their part much better," Dr. Walter Clarke, executive director of the American Social Hygiene Association, said in making public the Association's Annual Report for 1942.

"The Federal government has announced its intention of building the armed forces up to 10,800,000 men," Dr. Clarke said. "If a venereal disease rate only one-half that of the first World War is achieved, about 378,000 of these men will acquire syphilis or gonorrhea each year. If the infected men lose on the average only one-half the time lost by first-World-War victims, the loss will total 7,560,000 man days per year. This figure is equivalent to 21,000 men out of service, and a burden to the medical facilities of the armed forces for one full year.

"Where will these 378,000 men become infected? Every one of them will be infected in civilian com-

munities which allow prostitutes and promiscuous women and girls to spread disease to soldiers, sailors, marines, and coast guardsmen. It is perfectly possible to prevent a large part of this waste if civilian communities will use the scientific weapons—legal, medical, social, and educational—which are available. . . ."

In the report, Dr. Clarke stated that the greatest achievement during the past year is the obvious conversion of public opinion and particularly of lay and government leaders in strategic communities from coast to coast to a realization of the importance of the fight on venereal diseases and to a belief that the conditions which lead to their spread can and must be corrected. The report warns that the prostitution interests and the racketeers are not yet defeated and that the fight begun so successfully is not yet won. The report of the Association calls for expanded activities, constant vigilance, and increased vigor during 1943 as our armed forces grow and our war industries approach peak production.

RABIES REPORTED FROM FIVE COUNTIES

All stray dogs should be eliminated in areas where rabies is prevalent if the spread of this fatal disease is to be checked, the State Department of Health warned recently.

The Department statement says that until April of this year, the prevalence of rabies among dogs was limited to the counties of Orange, Rockland, Sullivan, and Ulster, which are located along the west shore of the Hudson River, but in April canine rabies was also reported from Cayuga County.

From January 1 to April 15, 1943, 62 rabid dogs

were reported from these areas. Of the 62 dogs, 2 were reported from Cayuga County; 4 from Sullivan County; 7 from Orange County; 12 from Rockland County; and 37 from Ulster County. During the same period there were also reported a rabid squirrel from Rockland County and a rabid wild fox from Otsego County. A rabid skunk was reported in Rensselaer County on December 29, 1942.

Effective control of canine rabies requires close cooperation between the public and health officials, according to the Health Department.

THE ROLE OF THE BRONCHOSCOPIST IN THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE BRONCHIAL PULMONARY TRACT

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BECAUSE of the demands of the rapid progress of medical science during the past decade, bronchoscopy has come to play an important role in the diagnosis and treatment of bronchial pulmonary diseases. To quote that famous teacher of bronchoscopy, Chevalier Jackson: "Look and see" is the order of the day. In every accessible region of the body, the aid of direct vision is called upon to contribute to diagnosis and treatment.¹

In the diagnosis of thoracic diseases, the internist, by means of external inspection, percussion, and auscultation, usually obtains sufficient information to establish a tentative diagnosis. His findings may be further corroborated by the roentgenologist, who by means of fluoroscopic and x-ray examination has an opportunity, as it were, to look through the chest. But it remains for the bronchoscopist, by means of direct visual inspection, to look inside the bronchial tree and observe the underlying pathologic condition. It becomes evident, then, that when there exists such a close association between the internist, the roentgenologist, and the bronchoscopist, the diagnosis of bronchial pulmonary conditions is greatly facilitated.

Aside from the removal of aspirated foreign bodies in lungs, for which no procedure other than bronchoscopy is worthy of a moment's consideration, the profession at large has not realized that the greatest value of the bronchoscope is in diagnosis. A recent statistical survey of the patients admitted to several of the large bronchoscopic clinics in this country revealed that only 2 per cent of the admissions were for the removal of foreign bodies. As Dr. Howard Lilienthal, one of the great teachers of thoracic diseases, has aptly said: "The scope of bronchoscopy has rapidly widened from the mere extraction of foreign bodies to the diagnosis and treatment of many pulmonary lesions, such as abscess of the lung, tumor of the lung, bronchial narrowing, bronchial ulceration, postoperative atelectasis, and as an aid to the thoracic surgeon in the localization of thoracic diseases."

In the field of diagnosis the bronchoscopist by means of direct vision is able to inspect the inside of the bronchial tree and remove tissue for histologic examination, thereby establishing, in many instances, the early diagnosis of bronchial carcinoma. By means of special aspirators intro-

duced through the bronchoscope, it is possible to remove purulent secretions for the relief of bronchial obstruction. Also secretions removed by this method, being free of oral contamination, assure a more desirable bacteriologic study, and are of greater value if a vaccine is to be prepared.

That bronchoscopic examination is not a hazardous procedure is best illustrated by the fact that during the seven years that the bronchoscopic clinic of the Schenectady City Hospital has been in operation—during which period over 1,200 bronchoscopic procedures have been performed—more than 90 per cent of the cases treated or examined were handled as outpatients.

Bronchoscopy and Diagnosis

Carcinoma of the Lung.—A relatively common disease, carcinoma of the lung is responsible for approximately 10 per cent of all cancer deaths, an occurrence which is frequent enough to arouse interest on the part of the medical profession. Bronchoscopic examination with removal of the tissue for histologic study is by far the most important diagnostic procedure available, and if an early diagnosis is to be made, bronchoscopy should be employed early. In a recent study of the subject, Overholt² calls attention to the fact that approximately three-fourths of all primary lung tumors are situated in the major bronchi so that they are within range of bronchoscopic vision. His findings are in complete agreement with those of C. L. Jackson,³ who in a recent article stated that bronchoscopic biopsy will be positive in about 75 per cent of the cases of bronchial carcinoma. In a series of 44 cases personally examined by the author during the past five years, a positive biopsy was obtained in 32 cases. This high percentage of positive biopsies is definite evidence that bronchoscopic examination plays an important role in the diagnosis of lung carcinoma.

The symptoms produced in primary carcinoma of the lung depend to a great extent on the degree of bronchial obstruction. By far the most important early symptom is a dry, hacking cough accompanied by slight bronchial wheezing. Physical examination during this early stage may reveal a few coarse moist rales and asthmatic wheezing over the involved pulmonary area. Roentgenographic studies of the chest during this stage may be entirely negative since the tumor is not large enough to cast a shadow. At this time the patient usually seeks medical ad-

¹Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 30, 1942.

dressings and ice outside. Pain was relieved, and healing was rapid and uncomplicated.

Case 3.—A laborer, aged 65, was brought to the hospital immediately after being rescued from a burning house. There were second and third degree burns of the face and limbs and also of large areas of the body; the scalp hair was completely burned off, and the soles of the feet had third degree burns. The patient was noisy and persistently irrational. There was hemoconcentration (hemoglobin, 20 Gm. per cent) and 2 plus albuminuria. Ice bags were applied over the usual dressings on the principal lesions after delay had allowed considerable swelling to occur, and plasma injections were given for shock. For three days the progress was so encouraging that hopes for complete recovery were aroused. On the fourth day, however, the patient's physical and mental state became worse. On the fifth day the temperature rose to 105 F., and death occurred.

Locally the cold wherever applied seemed definitely beneficial in reducing the original swelling, inhibiting infection, and keeping the surfaces unusually clean and healthy. Death from pneumonia is the usual result in such cases. Granting that inhalation was not a factor, the generally accepted cause is absorption of toxins from the burned tissues. Theoretically, the reduced local temperature is expected to reduce the formation and absorption of such substances. In the future we shall proceed on the assumption that the reduction of temperature was not efficient enough in this instance and also that it was a mistake to limit the cold to only a part of the burned surfaces.

Case 4.—An elderly white man was found unconscious on the street in the coldest weather of the winter. He had no idea of the length of time he had been exposed; it is also uncertain whether he had been slugged, according to his own theory, or whether he was intoxicated. When he was brought to City Hospital on February 15 he was suffering from general exposure and from various minor lesions, but his bare hands had suffered most. Both of them showed severe frost-bite, with huge swelling and beginning bleb formation.

Ordinary dressings were applied at first, and spe-

cial treatment was begun the next day. The left hand was dressed with vaseline gauze and placed on an ice bag. The right hand, which appeared worse than the other and was more painful, was placed in an electrically refrigerated box at 50 degrees F. and was left bare. The patient reported almost immediate relief of pain in the right hand. Examination a day later showed no important reduction of temperature in the left hand because of insulation by the dressings and failure to hold the hand on the ice bag.

The difference between the two hands was very striking, the swelling and blebs being greatly reduced in the right. As only one refrigerating box was available, the dressing was removed from the left hand and it was placed on a bare ice bag, with instructions to the patient to rest sometimes the palmar and sometimes the dorsal surface on the bag. All pain was thus relieved, and the patient pronounced himself comfortable without sedatives.

After one week his hands were gradually restored to normal temperature. Healing was complete within five weeks after admission, with far less tissue loss than had been anticipated, and with no residual complaint except some reduction of touch sensation. The rapid subsidence of pain and swelling, control of infection, and avoidance of extensive gangrene appeared exceptional for such a case.

Conclusions

Theoretically, the reduced temperature treatment of burns offers more or less complete control of pain, edema (including blistering and oozing), necrosis of partially injured tissue, infection, and shock. Our small experience with burns and frost-bite treated with local application of cold seemed to confirm both these advantages and also Fay's observation of the favorable character of the healing and scars.

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WAR CONFERENCE

The medical, surgical, and industrial hygiene experts who are so ably safeguarding the well-being of more than 20 million industrial workers have agreed to pool their knowledge and exchange their experiences regarding the many new and complex problems of today's wartime production. For this purpose their organizations—the American Association of Industrial Physicians and Surgeons, the American Industrial Hygiene Association, and the National Conference of Governmental Hygienists—are combining their annual meetings in a four-day "War Conference" at Rochester, May 24-27.

This joint meeting will be a report on the state of the nation, by the men who know, in matters of industrial health. Dr. William A. Sawyer, Medical Director of Eastman Kodak, is general chairman; Dr. James H. Sterner and Lieut. Comm. J. J. Bloomfield are arranging the programs for the industrial hygienists.

Physicians and surgeons, hygienists, engineers, nurses, executives—all who are interested in the problems of industrial health and their solution—are invited to attend as many of the sessions as they can arrange for; no registration fee is required.



FIG. 2A. Preliminary lipiodol study in a patient aged 46, showing a marked stenosis of the left main stem bronchus. Subsequent bronchoscopic examination with biopsy removal revealed a tumor mass of the left main stem bronchus located at about the level of the left upper lobe orifice. The patient refused operation and died one year later.

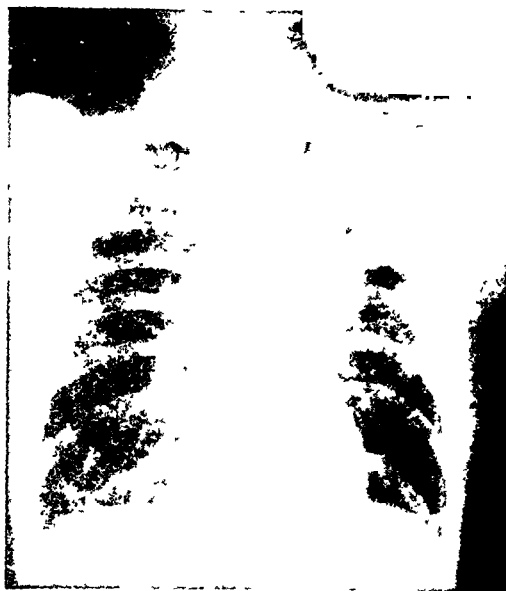


FIG. 2B. Patient, aged 45, diagnosed and treated for tuberculosis because of radiographic evidence of infiltration in the upper lobe of the left lung and the spitting of blood. During the two months that he was in the sanatorium his sputum had been repeatedly negative for tubercle bacilli. It was not until he developed a complete atelectasis that some thought was given to the possibility of a malignant neoplasm. The patient was finally referred for bronchoscopic examination, which revealed a large fungating ulcerative tumor mass obstructing the left main stem bronchus at the level of the carina. Histologic examination from the tissue removed at biopsy revealed a carcinoma of indifferent type, Grade 4. Within a very short time the patient developed massive pulmonary infection and died several months later.

Benign Neoplasms of the Tracheobronchial Tree.

—Without the aid of bronchoscopic inspection, the diagnosis of benign neoplasms of the trachea or bronchi would probably never be made except by inference. The symptoms and physical signs produced depend to a great extent on the degree of bronchial obstruction and the presence of infection. It is always to be remembered that the first symptoms produced in early bronchial obstruction, regardless of the cause, are those of wheezing and coughing. If coughing is associated with blood-streaked sputum, bronchial neoplasm should always be considered in the differential diagnosis.

Because the bronchi normally elongate and become widened on inspiration and become shortened and narrowed on expiration, benign tumors, particularly papillomas, will often produce a check-valve mechanism, resulting either in obstructive emphysema or atelectasis of the involved pulmonary area. In obstructive emphysema a very important fluoroscopic finding is the slight shifting of the heart toward the uninvolved side; whereas, in atelectasis, the heart and mediastinum are displaced toward the

affected side. Benign tumors of the trachea or bronchi can usually be successfully removed by bronchoscopic procedure. It is important that the diagnosis be established early, before any degree of bronchial obstruction and pulmonary infection has taken place.

Bronchial Stenosis.—This condition results from (1) inflammatory reaction produced by foreign bodies, (2) specific infections such as syphilis and tuberculosis, or (3) congenital tendencies. The clinical symptoms and physical signs produced are chiefly those of bronchial obstruction. Once the preliminary physical, x-ray, and lipiodol study suggests the possibility of bronchial stenosis, bronchoscopic dilatation should be immediately carried out. Holinger⁴ calls attention to the fact that inflammatory bronchial stenoses, if untreated, may eventually lead to atelectasis and then to bronchiectasis. Most forms of bronchial stenoses, with the ex-



Fig. 1. Chest x-ray of a patient aged 48, who, because of the symptoms of wheezing and dyspnea, was treated for bronchial asthma. Later, because of hemoptysis, he was sent to a sanatorium for the treatment of tuberculosis. Because the sputum was repeatedly negative for tubercle bacilli, a bronchoscopic examination was recommended. Bronchoscopy revealed a tumor mass obstructing the orifice of the right upper lobe bronchus. Thoracic surgery was immediately recommended. The patient made an uneventful recovery from the operation and two months later returned to light employment. Six months after the operation, while working, he was suddenly seized with an attack of dyspnea from which he did not recover. Postmortem examination revealed a retrograde thrombus of the right pulmonary artery at the site of ligation, extending into and involving the left pulmonary artery. There was no evidence of residual tumor tissue.

vice because of the cough and wheezing. In spite of the fact that no improvement is usually shown after several weeks or several months of medical treatment, very little thought is given to the possibility of bronchial carcinoma.

Slight asthmatic wheezing is a very important early symptom. It is commonly present in all cases of bronchial carcinoma. Wheezing means only one thing—partial bronchial obstruction, which may be produced by a variety or combination of conditions, among which is bronchial carcinoma. The importance of this one symptom alone cannot be too strongly emphasized. In the series of 44 cases of bronchial carcinoma bronchoscopically examined by the author during the

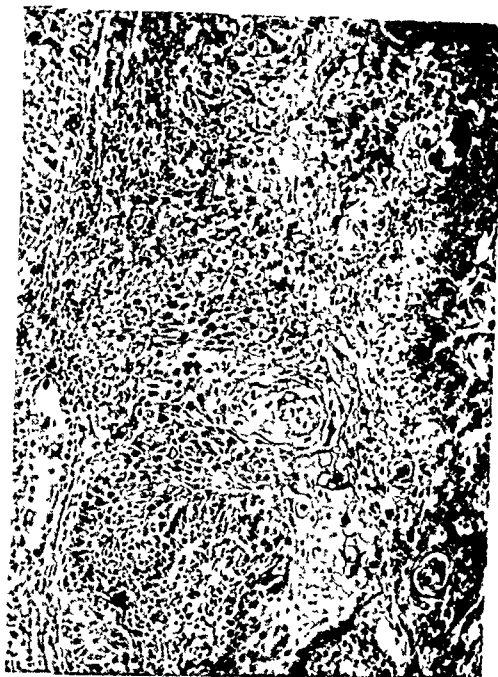


Fig. 2. Biopsy obtained by diagnostic bronchoscopy revealed a squamous cell carcinoma, Grade 3

past five years, it was astonishing to learn that 15 of the patients, because of recent wheezing and slight dyspnea, had been previously treated for bronchial asthma. Any patient, particularly of the cancer age group, presenting this symptom, should immediately be x-rayed and should have the benefit of a diagnostic bronchoscopy. The appearance of blood-streaked sputum or frank hemoptysis are also frequent early symptoms and are usually due to the trauma of coughing and ulceration of the tumor mass. Pain, as in other malignancies throughout other parts of the body, is definitely not an early symptom.

For the purpose of clinical study, Overholt divides the clinical course of primary lung carcinoma into the following divisions: (1) the stage before bronchial occlusion, (2) the stage of bronchial occlusion, and (3) bronchial occlusion with secondary infection. (Figs. 1, 2, 2A, 2B, 2C.)

It is important that in order to increase the operability of this condition, which in the past has had a mortality of 100 per cent, and in order to take advantage of the rapid progress already made to date in the field of thoracic surgery, the diagnosis should be established early, before the stage of bronchial occlusion. By far the most diagnostic procedure available at the present time is bronchoscopic examination.

mucosal edema, thick purulent secretions, and granulation tissue. Once the affected pulmonary segment is carefully localized by preliminary physical and x-ray examination, the bronchoscopic procedure consists of locating and draining the involved bronchus. Whenever possible, the intrabronchoscopic injection of lipiodol directly into the draining bronchus and into the abscess cavity will materially aid drainage by its displacement of tenacious purulent secretions. Since the advent of the sulfonamide group of drugs in the treatment of many types of pulmonary infections, this form of chemotherapy has also been employed in combination with the treatment by bronchoscopy. In several cases treated during this past year, sulfathiazole was insufflated directly into the draining bronchus. If bacteriologic examination also reveals the presence of fusospirochetal organisms, intravenous injections of neosarsphenamines are given at weekly intervals.

In the treatment of chronic lung abscess, except as a preliminary aid to the thoracic surgeon, bronchoscopy is of small value. Cases having a well-defined, densely organized abscess wall are strictly a surgical problem.

Treatment of Bronchiectasis.—The only treatment offering a complete cure in bronchiectasis is lobectomy or total pneumonectomy. However, where surgery is contraindicated because of advanced age, multilobar involvement, and cardiac disease, routine bronchoscopic aspirations, postural drainage, and intratracheal instillation of lipiodol offer a marked palliative relief to the patient.

As an aid in the surgical treatment of bronchiectasis, bronchoscopic aspiration of purulent secretions immediately before, and occasionally during and following the operation, serves to reduce the incidence of postoperative complications. This simple procedure often proves to be a life-saving measure.

Cause and Prevention of Bronchiectasis.—One of the most important roles assigned to the field of bronchoscopy is in the prevention of primary or acquired atelectasis. The accumulated clinical, experimental, and postmortem studies clearly indicate that bronchial dilatation is practically always due to infection of the bronchial wall with destruction of the elastic tissue framework, resulting from prolonged bronchial occlusion and atelectasis. In the majority of cases this condition is chronic and its evolution is gradual. Occasionally bronchiectasis is met with in the acute form following infectious diseases, characterized by marked bronchial irritation, as in whooping cough and influenza.

Children and infants suffering from upper respiratory infection with persistent aspiration of

postnasal drainage material are in constant danger of developing atelectasis and finally bronchiectasis. It is most important that if this condition is to be prevented and the chronic source of bronchial irritation removed, the upper respiratory infection should be eliminated. Also after the successful removal of aspirated foreign bodies which have caused some inflammatory reaction, patients should be kept under observation and should undergo periodic chest examinations for a period of several months.

Holinger⁴ and Tucker⁵ describe various stages in the development of bronchiectasis, in which, if bronchoscopic aspiration is frequently done and bronchial drainage is re-established, the existing pathologic process is still reversible. Anspach⁶ calls attention to the so-called triangular shadows at the base of the lungs, which he regards as an area of localized atelectasis, where, under certain conditions, bronchiectasis may develop. To Anspach also goes the credit for calling the attention of his fellow pediatricians to the value of bronchoscopic aspiration in the prevention of bronchiectasis in children presenting this basal involvement.

The rapidity with which bronchiectasis develops after pulmonary atelectasis will to a great extent depend on the type of organisms present in the trapped secretions. Because of the airless state produced by the atelectasis, a state of anaerobiosis is soon established. If anaerobic organisms are present, they will multiply in great numbers and hasten the destruction of the elastic tissue framework of the bronchial structures. Smith⁷ believes that fusospirochetal organisms aspirated from the oral cavity and always present in the secretions of obstructive lesions of the bronchial tract play a very important role in the development of bronchiectasis.

The diagnosis of bronchiectasis can only be definitely established by means of bronchoscopy and pneumonography. Neither the internist nor the radiologist should attempt to make a positive diagnosis unless the above procedures have been first carried out.

Postoperative Atelectasis.—This development usually results from a bronchial obstruction by aspirated secretions or vomitus during or immediately following operation. The condition is more common following operations in the upper abdominal quadrant because of voluntarily decreased diaphragmatic movement in an attempt to reduce abdominal pain. Although postoperative atelectasis was clearly described as early as 1900, its frequency has been fully appreciated only in recent years. Improved x-ray technic and the many papers published on obstructive atelectasis have stimulated both internists and surgeons, with the result that this condition is



FIG. 2C. Chest x-ray of patient shown in Fig. 2B, showing a marked atelectasis of the left lung.

ception of the well-developed fibrostenotic type resulting from endobronchial tuberculosis, are easily dilated.

Nonopaque Foreign Bodies.—Particularly in children and infants, foreign bodies present a most troublesome problem in diagnosis, since, in many instances, they are overlooked as a diagnostic possibility. It is only when severe pulmonary reaction has already taken place that these patients are sent to the bronchoscopist for examination. Unfortunately, because of inadequate history and because of the fact that these foreign bodies are not visualized by the x-ray, many of the patients developing pulmonary involvement are at first treated for pneumonia. In every child, seen for the first time, who is suffering from obvious pulmonary infection a careful history obtained from the parents should include information regarding recent attack of coughing and choking while eating or drinking. Vegetal foreign bodies, peanut kernels in particular, set up a violent reaction that will prove quickly fatal if the foreign body is not removed.

As a rule, once a vegetal foreign body has lodged in the bronchus, a local reaction soon follows, causing a marked edema of the bronchial mucosa, which soon results in a beginning obstructive emphysema. The symptoms during this early stage are mainly those of wheezing, dyspnea, cough, and slight elevation of temperature. The physical examination usually reveals diminished diaphragmatic excursion of the af-

ected side, bronchial wheezing, mucous rales, slight roughness, and prolongation of the expiratory sound. During this early stage, the conventional x-ray chest films may be of little value. It is by means of physical and fluoroscopic examination of the chest that the diagnosis of obstructive emphysema can be definitely established during its early stage. Fluoroscopic examination of patients with obstructive emphysema will reveal a shifting of the heart shadow toward the uninvolved side during expiration. On the affected side there is decreased diaphragmatic motion, widening of the intercostal spaces, with slight depression and flattening of the dome of the diaphragm. If the foreign body is not quickly removed, the bronchial occlusion becomes more complete and the stage of obstructive emphysema soon changes to that of partial atelectasis. Finally, with complete obstruction to both the entrance and exit of air, massive atelectasis, with the inevitable complication of drowned lung and abscess formation, soon takes place. Even at this late stage, bronchoscopic removal of the foreign body, with re-establishment of pulmonary drainage and ventilation, offers the patient a fair prognosis toward complete recovery.

This last stage of massive atelectasis, with subsequent pulmonary destruction, might never be reached if every pediatrician and general practitioner of medicine would strongly consider the diagnostic possibility of aspirated foreign bodies as the causative factor in both children and infants presenting the symptoms of laryngeal stridor, bronchial wheezing, dyspnea, cough, and elevation of temperature.

Bronchoscopy and Treatment

Treatment of Lung Abscess.—In the field of therapy, bronchoscopic aspiration for the treatment of suppurative diseases of the bronchial tract is now a well-established procedure. By no means is it necessary to recommend all cases of lung abscess for thoracic surgery. In a series of 28 cases of early lung abscess seen by the author during the past five years, in only 8 cases was it necessary to employ surgical intervention. The 20 cases not requiring surgery made uneventful recoveries following bronchoscopic aspiration and medical treatment. It is to be made clear, however, that bronchoscopic aspiration and conservative measures should be carried out only for a period of six weeks. If, during or at the end of that period of time, no improvement has been shown, either clinically or by roentgenographic study, surgery is immediately advocated.

The desired factor in the bronchoscopic treatment of lung abscess is to facilitate drainage from the abscess cavity. Usually the draining bronchus leading from the cavity becomes blocked by

and type of bronchial infection present. In the chronic form of bronchial asthma secondary infection is invariably present and degenerative changes of the bronchial tract with defective ciliary drainage are a constant finding.

The author, in the repeated bronchoscopic examination of numerous patients of all ages suffering from intractable asthma, has never observed the phenomenon of bronchial spasm to be present in the major bronchi. The constant finding of bronchial obstruction by mucosal edema with congestion has led the author to reconsider the previously accepted theory that status asthmaticus was primarily due to a spasm of the circular fibers of the bronchial wall. While the hypothesis of bronchial spasm is the one most generally advanced as the immediate cause of the attack, it is quite probable that the factor of bronchial edema with congestion plays a very important part and that both, rather than either one alone, are involved in producing the phenomenon of an asthmatic seizure. Bronchoscopy, by means of direct visual inspection of the inside of the bronchial tree, affords an open door to the further study of this complex disease.

Bronchoscopy in the Treatment of Bronchial Asthma.—The treatment of this condition, regardless of method or combination of therapy employed, makes up one of the gloomy chapters in the history of medicine. In many instances when the attacks occur early in life and tend to persist and increase in severity, the patient inevitably develops chronic emphysema and sooner or later becomes a confirmed "asthmatic." Both the severity and duration of the seizures will determine to a great extent the rapidity with which this emphysematous state is reached.

Bronchoscopic aspiration of retained secretions during an asthmatic attack which has failed to respond to the commonly accepted methods of treatment will in many instances result in the quick subsiding of the attack. Ramirez and St. George⁸ believe that bronchoscopy is of undoubted value in the so-called nonallergic forms which are associated with chronic bronchitis and bronchorrhea. The benefit is derived not only from the removal of the thick mucus and the endobronchial medication but also from the vaccines prepared from the bronchoscopically aspirated secretions. Autogenous vaccines prepared in this manner, free from oral contamination, seem to be more effective than those prepared from sputum. Clerf⁹ has obtained excellent palliative results following bronchoscopic aspiration of secretion in certain cases of asthma in which there was a tracheobronchitis or definite suppuration of the lung. Halliday¹⁰ believes that the marked improvement and relief from distressing symptoms

following bronchoscopic aspiration and instillation of medication render this procedure an important aid in the treatment.

In certain cases of intractable asthma with heavy, retained secretions not responding to any form of allergenic or adrenalin therapy, the author has obtained a marked symptomatic improvement following frequent intratracheal instillation of a 40 per cent iodized oil. The oil, because its specific gravity is greater than that of the bronchial secretion, displaces and floats the secretion into the larger bronchi and trachea, from where it may be coughed up with ease. There is also a possibility that the free iodine being constantly liberated may serve in stimulating the sympathetic system in relieving bronchial spasticity.

The author is in complete accord with Clerf, who states that before a patient is accepted for bronchoscopic treatment, systematic studies should be made to elicit all possible causative factors. The investigation should include a complete x-ray study of the chest, rhinologic examination, and a thorough allergic study.

Endobronchial Tuberculosis.—Bronchoscopy has opened up a relatively new and important field in the diagnosis and treatment of tracheobronchial tuberculosis. The inexplicably bad results of collapse therapy in the past were no doubt due in part to the presence of bronchial tuberculosis, which was frequently overlooked. The importance of this condition is best illustrated by the fact that today it is a standard procedure with the majority of thoracic surgeons that all patients being contemplated for any form of collapse therapy must first undergo a diagnostic bronchoscopy to rule out tracheobronchial involvement. If the bronchial tract is involved, postponement of operation is preferred and specific intrabronchoscopic treatment is immediately instituted.

The symptoms of bronchial tuberculosis are chiefly those of partial bronchial obstruction. In some instances the obstruction becomes complete and a state of atelectasis soon develops. When a formerly asymptomatic patient, undergoing treatment for pulmonary tuberculosis, suddenly develops the symptom of wheezing with rhonchi which is soon followed by dyspnea, elevation of temperature, recurrence of the positive sputum, and, later, hemoptysis, the possibility of bronchial tuberculosis should be strongly considered. In a small group of cases with positive sputum and hemoptysis in which there is no demonstrable x-ray evidence of pulmonary disease, bronchoscopic examination often reveals the presence of tuberculous bronchial ulceration.

Many tuberculosis institutions throughout the country, realizing the importance of bronchos-

now a definite entity with definite clinical and x-ray evidence.

The symptoms and the observations made of this postoperative complication usually follow a rather definite pattern. Within several hours or longer, following operation, the patient complains of dyspnea, which is usually out of all proportion to the degree of pulmonary involvement. There is a sense of discomfort over the lung involved, the pulse becomes rapid, there is sudden increase in temperature, and cyanosis becomes apparent. Contrary to general opinion, the diagnosis of this condition in its early stage is dependent more upon the physical examination than the x-ray findings. Physical findings during this early stage are usually those of obstructive emphysema.

As the bronchial obstruction increases, early signs of atelectasis begin to appear. The x-ray findings in the early cases of atelectasis may reveal little or no increase in density over the lung involved, but later the shadow may be dense or homogeneous. In the more severe cases, there are elevation of the diaphragm on the affected side, narrowing of the intercostal spaces, and marked displacement of the heart and mediastinum.

Treatment of Postoperative Atelectasis.—Postoperative atelectasis can be best treated by means of bronchoscopic aspiration, with the removal of the obstructing bronchial secretions. It is important that if an early diagnosis is to be established, the surgical intern and the surgeon be ever on the alert for the possibility of this surgical complication. Fortunately for the patients who come to operation in the author's community, surgeons and internists are wide awake regarding this complication and lose no time in asking for bronchoscopic consultation. In the past, patients developing this unfortunate condition were treated for pneumonia, a procedure that was usually followed by a high mortality. Today practically all patients treated for postoperative atelectasis by bronchoscopic aspirations make an uneventful recovery. In the majority of cases treated there is a sudden drop in the temperature, pulse, and respiratory rate. Almost immediately the patient feels relieved of the dyspnea and is able to cough up with ease the remaining secretions. It is to be made clear, however, that the diagnosis must be made early, for if atelectasis is allowed to exist for many hours, secondary pneumonitis and pulmonary suppuration may develop. In several well-known surgical clinics in this country, patients exhibiting signs of respiratory obstruction are immediately bronchoscoped during the operation and again before leaving the operating room. It is a standard rule in these clinics that no patient shall leave the operating room with a "wet lung."

In addition to bronchoscopic aspiration, patients developing postoperative atelectasis are administered a 5 per cent carbon dioxide-oxygen mixture for a period of five minutes at intervals of from one to two hours until respiration and pulse rate return to a normal postoperative level. Instructions are also given to have the patient frequently rotated from side to side. With this added treatment, the patient is usually able to cough up the remaining retained secretions.

Prevention of Postoperative Atelectasis.—In the prevention of this complication many important details should be attended to before and during the operation. One important detail is the question of heavy preoperative sedation in patients who are known to have a chronic bronchitis or sinusitis. Many of these patients spend considerable time on awakening every morning in clearing their nasopharynx and tracheobronchial tree of accumulated secretions aspirated during the sleeping hours. If the cough reflex is depressed by heavy sedation given the evening before and on the morning of operation, these patients are not able to clear out their airways. Before taking the morning sedation, then, these patients should be encouraged to cough and clear themselves of retained secretions.

If morphine is used postoperatively it should be given cautiously, since it will tend to depress the cough reflex. Atropine and scopolamine should also be used judiciously because they tend to dry up secretions, making it impossible for the delicate ciliated epithelium to move up secretions in the larger bronchi and trachea from which they can be easily expectorated.

If there is any question whatsoever of respiratory disease a complete x-ray study of the chest should be made and, if possible, operation should be postponed if the x-ray reveals any pulmonary pathology.

Bronchoscopy in Bronchial Asthma.—If possible, every case of bronchial asthma being contemplated for allergenic treatment should undergo a diagnostic bronchoscopy. To recall the words of Dr. Chevalier Jackson: "All that wheezes is not asthma." Time and again, bronchoscopic examination of patients diagnosed and treated for this condition has revealed that the underlying cause of wheezing and dyspnea was the presence of intrabronchial pathology in the form of neoplasm, bronchial stricture, bronchiectasis, localized atelectasis, endobronchial tuberculosis, varicose forms of bronchitis, nonopaque foreign bodies, laryngeal papillomata, and pressure on the trachea and bronchi from extrinsic causes.

The bronchoscopic findings in bronchial asthma are chiefly those of mucosal edema with congestion. The amount and character of the secretion usually depend in a large measure on the severity

THE USE AND ADVANTAGES OF AUGMENTED UNIPOLAR EXTREMITY LEADS (aV-LEADS) IN THE ELECTROCARDIOGRAPHIC DIAGNOSIS OF MYOCARDIAL INFARCTION (DUE TO CORONARY ARTERY OCCLUSION AND ACUTE CORONARY INSUFFICIENCY)

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IN A paper recently published in the *American Heart Journal*¹ I described a technic of obtaining augmented unipolar extremity leads, together with a description of a very simple indifferent electrode necessary for use with these leads. The standards and principles required for proper use of the leads were then further established in another article.²

In this paper I shall demonstrate the applicability of my system of electrocardiography, especially in the diagnosis of myocardial infarction, when standard leads show atypical signs or show no pathognomonic signs at all.

First, however, let me briefly review definitions of terms and details of technic which are as yet unknown to the general medical public.

Definitions

1. *Standard lead* electrocardiograms represent, in reality, the difference in potential between the two extremities being recorded.³ In other words, the *standard lead* is a *bipolar extremity lead*.⁴

2. *Unipolar extremity leads*, on the other hand, record the potentials from any one of the three extremities, using an indifferent electrode of zero potential. (Either the author's¹ or Wilson's⁵ may be used.)

3. *Augmented unipolar extremity leads* (aV-leads) are like the ordinary or unaugmented unipolar extremity leads in that they also record the potentials from only one extremity. However, the hookup is such that even though the electrocardiograph is standardized in the usual manner, in the finished record the augmented unipolar extremity leads electrocardiograms have potentials $\frac{3}{2}$ greater than the ordinary unipolar extremity lead records.¹

The three aV-leads (augmented unipolar extremity leads*) used are: (a) the aV_I lead, the augmented left arm extremity lead; (b) the aV_R lead, the augmented right arm extremity lead; and (c) the aV_F lead, the augmented left leg extremity lead.

4. *Precordial leads* are taken in accordance with the conventions established by the American

Heart Association⁶ for use with an indifferent electrode of zero potential. The leads are named V₁, V₂, V₃, V₄, V₅, and V₆. Lead V₄ corresponds to the usual precordial lead taken along with standard leads.

Construction of the Author's Indifferent Electrode of Zero Potential¹

Three single lengths of ordinary No. 18 electric wire, and four battery clips (Fig. 1) are needed. The wire should be about 4 feet in length.

1. Arrange the three lengths as they are arranged in Fig. 1, exposing their ends.

2. Join the three loose ends at T, and apply one of the battery clips (Fig. 1).

3. To the other ends of the three lengths, additional battery clips may be attached. Tips may be soldered, or such alterations made as are necessitated by variations in the construction of different kinds of electrocardiographs.

The Technic of Taking the aV- and Precordial V-Leads (Fig. 1)

1. *The aV_I Lead*.—Set electrocardiograph for lead 1.

2. Place electrodes on the patient's right and left forearms and left leg.

3. Attach the indifferent electrode as illustrated in Fig. 1 to the electrodes on the right forearm and left leg. The third end of the indifferent electrode is left free.

4. Attach the RA lead wire (from the electrocardiograph) to the central terminal of the indifferent electrode.

5. Attach the LA lead wire to the electrode on the left forearm.

6. Standardize the electrocardiograph so that 1 cm. = 1 mv.

7. Run the record.

In the finished record, positivity will be represented by an upward deflection, and 1.5-cm. deflection of the waves will be equivalent to a potential of 1 mv. (The standardization mark should rise or fall only 1 cm.)

8. *The aV_R Lead*.—After the aV_I lead has been taken, remove one of the ends of the indifferent electrode from the right forearm and attach it to the electrode on the left forearm.

9. Attach the LA lead wire to the electrode on the right forearm.

¹ Awarded the Merrit H. Cash Prize by the Medical Society of the State of New York, April 28, 1942.

² From the Department of Medicine, Lincoln Hospital, New York, Dr. Leander H. Shearer, Director.

³ The unaugmented ordinary unipolar extremity leads are known as leads V_I, V_R, and V_F, respectively.⁴

copy as an aid in the diagnosis and treatment of this serious complication of pulmonary tuberculosis, have now added a bronchoscopic clinic as an integral part of the surgical department.

Bronchoscopy as an Aid to Thoracic Surgery.—The rapid progress already made to date in the field of thoracic surgery has been in no small way due to the aid of the bronchoscopist, who by careful endoscopic examination has aided in the correct localization of pulmonary lesions. Probably the greatest aid of bronchoscopy to the thoracic surgeon has been in the early diagnosis of primary carcinoma of the lung. In the diagnosis of tracheobronchial tuberculosis, the bronchoscopist has been of great aid to the surgeon in calling his attention to the existing contraindication for collapse therapy. In certain instances bronchoscopic aspiration before, during, and following thoracic operations has served to reduce post-operative mortality. The advances still to be made in the field of thoracic surgery will no doubt depend in part on further bronchoscopic research on the behavior of the normal and diseased bronchi.

Summary

In this brief review of the role of the bronchoscopist in the diagnosis and treatment of diseases of the bronchial pulmonary tract, the author has attempted to emphasize the following facts:

1. Aside from the well-known procedure for the removal of aspirated foreign bodies, bronchoscopy has come to play an important rôle in the diagnosis and treatment of diseases of the bronchial pulmonary tract.

2. There are many conditions of the lower res-

piratory tract that often remain undiagnosed because of lack of bronchoscopic study.

3. In the diagnosis of primary carcinoma of the lung, bronchoscopic examination is by far the most important diagnostic procedure available.

4. Close cooperation between the internist, radiologist, and bronchoscopist will in many instances facilitate the diagnosis of obscure conditions of the bronchial pulmonary tract.

5. Many suppurative conditions of the lungs if diagnosed early will respond to bronchoscopic and medical management.

6. Bronchoscopy is of aid in the removal of bronchial obstruction, thus preventing the development of atelectasis and subsequent pulmonary destruction.

7. Bronchoscopy is of aid to the thoracic surgeon in the localization of pulmonary lesions.

8. Bronchoscopy is not a hazardous procedure, and the majority of patients treated are handled as outpatients.

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RESEARCH ON QUININE SUBSTITUTES

Through the combined efforts of chemists all over the nation, new drugs that will replace quinine in the treatment of malaria are being developed, together with other remedies for the control of yellow fever and similar tropical diseases. Furthermore, most of these drugs are less toxic than quinine and some of its earlier substitutes.

At a symposium on malaria at the American Chemical Society's meeting in Detroit, it was explained that the loss of the quinine supply to the Japanese has been compensated for by the production of atabrine. According to A. E. Shernald, of the Winthrop Chemical Company, the quinine supply was sufficient before the war to treat 50,000-100,000 cases of malaria, but the expansion of atabrine production has made it possible to treat even more than this number, and the production goal is set at twice the present figure.

A further suggestion was made at the meeting that the biotin-inactivating substance, avidin, recently isolated from uncooked egg white, is a

promising new agent in the present fight against malaria.

The manufacture of synthetic quinine is being aided by chemistry students at the College of the City of New York. Under the direction of Professor William L. Prager, students at the college are combining raw chemicals into compounds called "intermediates," which are shipped to plants and put through the final processes.

The Rockefeller Foundation, it was revealed in the report of Raymond B. Fosdick, president, is also contributing to the research on combating tropical diseases and has already developed a new type of vaccine for yellow fever. Four million doses were distributed to American and Allied troops in Africa, and mass vaccination of the population in Africa has been undertaken. Without this protection troops could not be assigned to some of the areas in which they are now stationed.

The Rockefeller Foundation is also engaged in research for quinine substitutes.

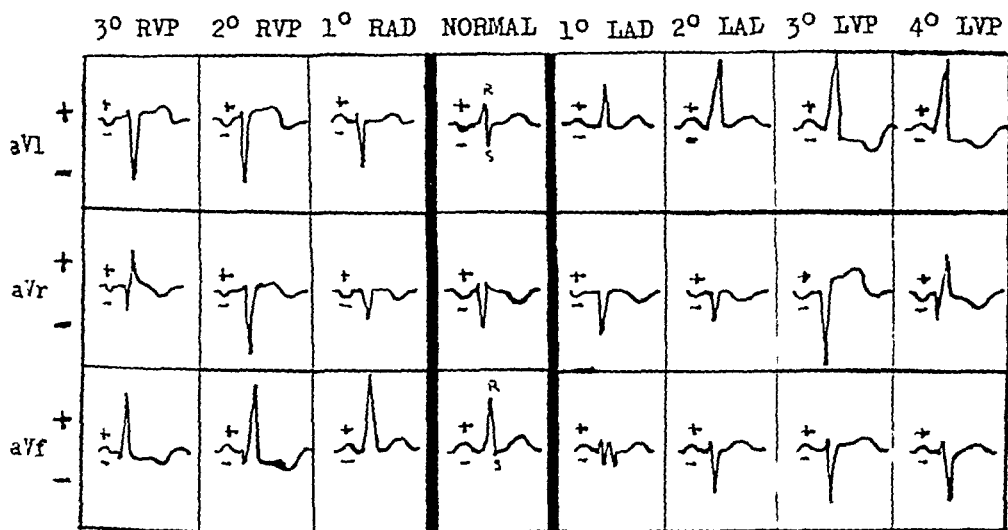


FIG. 2. The patterns of axis deviation and ventricular preponderance. LAD—left axis deviation. RAD—right axis deviation. LVP—left ventricular preponderance. RVP—right ventricular preponderance.

attached. When the aV-leads are taken, one end of the indifferent electrode also remains unattached.

Terminology

All measurements should be made in terms of millimeters, *not* millivolts. P, T and U waves are described as usual.

The QRS Complex.—Since the QRS complex, physiologically, is a single entity, separate identification of the individual waves is done for purposes of description only.

The nomenclature described below is in accord with the request of the American Heart Association to have standard terminology applicable to *all* leads:

- Q—an initial downward (–) deflection, if followed by an upward deflection.
- QS—an initial downward (–) deflection if not followed by an upward deflection.
- R—the first upward (+) deflection.
- S—a downward (–) deflection, if present, following R.
- R', R''—additional upward (+) deflections, after the first R.
- S', S''—additional downward (–) deflections, after the first S.

The relative sizes of the deflections can be described by the use of small and capital letters, i.e., qR, Rs, etc.

Normal Patterns² {Fig. 2}

The aVr Lead.—The basic normal pattern of the aVr lead consists of a (–) P: a (–) ventricular complex comprising a QS, an iso-electric

RS-T segment, and a (–) T. The normal variations are the presence of either or both a small r or r'.

The aVf Lead.—The basic pattern of the aVf lead is just the reverse of the aVr lead: a (+) P; monophasic (+) R, and a (+) T, with similar normal variations.

The aVl Lead.—The aVl lead may resemble the aVf or the aVr leads. P is usually (+) though it may be (–). When the main ventricular deflection is (+), T is (+). When the main ventricular deflection is (–), T may be (–), especially if the patient is recumbent.

The Precordial Leads.—Standards for these have been well established and need not concern us here.⁷

The Patterns in Axis Deviation

aV-leads vary directly with the electrical axis of the heart. Elaboration on this subject is not necessary here, for it has been clearly shown that the potential of the aVl lead is a good index of axis deviation; a large (+) deflection is an indication of left axis deviation; and a (–) main ventricular deflection indicates a right axis deviation.^{2,5,7}

In Fig. 2 are shown the usual patterns observed in cases of axis deviation and ventricular preponderance.

Myocardial Infarction

So much, then, for introductory remarks. Now for a discussion of the patterns in acute myocardial infarction due to coronary artery occlusion (thrombosis or embolism) and coronary insufficiency.

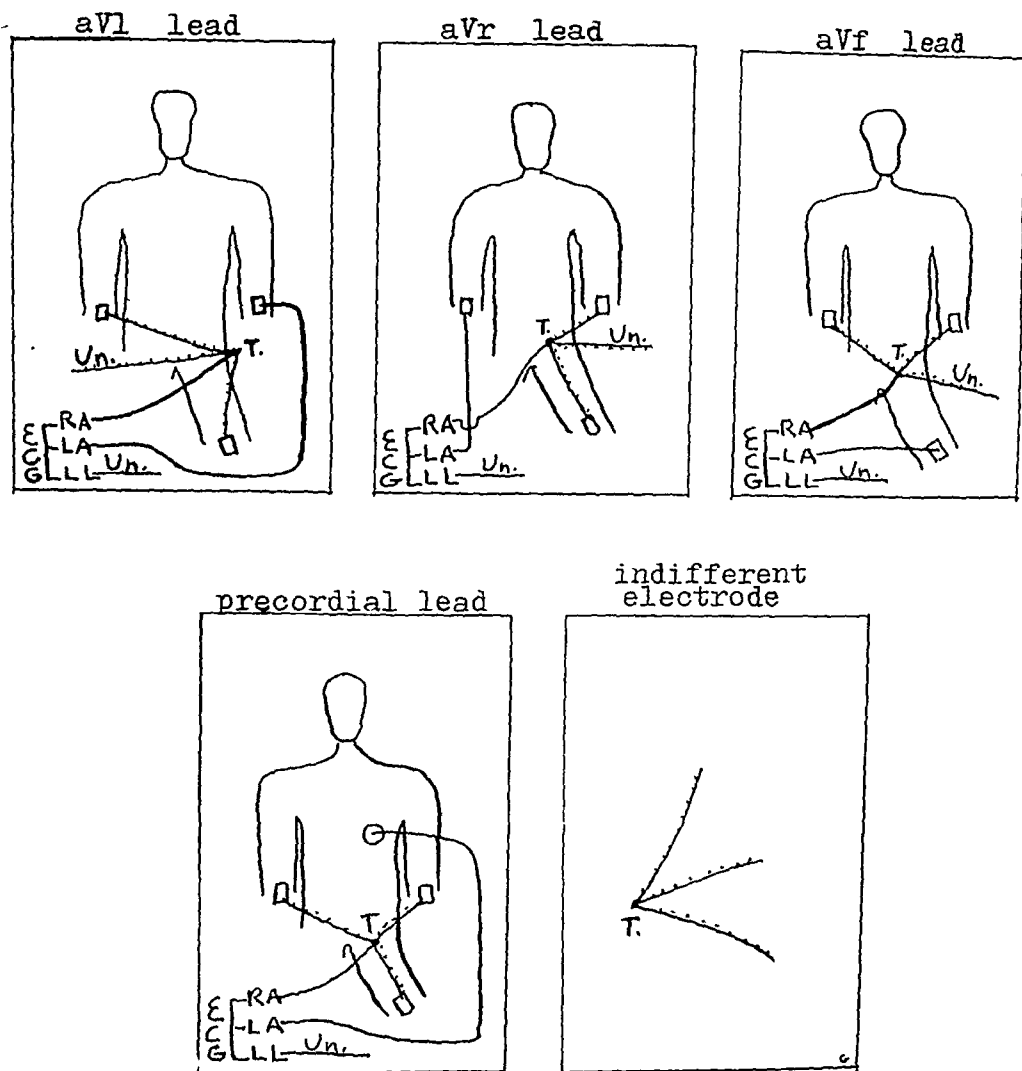


FIG. 1. Hookup to take augmented unipolar extremity leads (aV-leads) and unipolar precordial leads with the author's indifferent electrode of zero potential.

The electrocardiograph should be set for lead 1.

Un.—unattached. The left leg lead wire from the electrocardiograph is always left unattached. When the extremity leads are taken, one end of the indifferent electrode is also left unattached.

10. Standardize and run the record

11. *The aVf Lead.*—Remove the end of the indifferent electrode from the left leg, and attach one of its ends to the electrode on the right forearm.

12. After removing the LA lead wire from the right forearm, attach it to the electrode on the left leg.

13. Standardize and run the record.

14. *The Precordial V Leads.*—Attach the third end of the indifferent electrode to the electrode on the left leg. (The other two ends

are attached to the electrodes on right and left forearms if the procedure above has been followed.)

15. Using a regulation precordial electrode, attach the LA lead wire to it, and place it on the desired part of the thorax.

16. Standardize and run the record.

In the precordial leads, as with the aV-leads, positivity will be represented by an upward deflection, but here 1-cm. deflection = 1 mv.

Throughout this procedure, the left leg lead wire from the electrocardiograph remains un-

tive. It is as if a hole were cut in the heart and the electrode placed over it. Consequently, the initial deflection is $(-)$ (a Q wave).^{10,11}

To summarize, only unipolar leads overlying or facing the infarct can record a Q and a $(+)$ RS-T deviation.

Fourth, T wave changes later develop in a direction opposite to that of the RS-T segment deviation. The mechanism for this is as follows:

It was mentioned above that as the impulse sweeps over the heart, it may be considered as a wave with a $(+)$ pole in the direction to which the impulse is spreading, and a $(-)$ pole in the region from which the impulse is passing. During the regression of activity, these conditions are reversed, and the $(-)$ pole of the impulse is in the direction to which the regression wave is progressing. Normally, in the heart the paths of activation and of regression are not identical. In the healing stages of infarction this discrepancy is more marked, because, as has been experimentally demonstrated, in the region surrounding the healing infarct, the duration of the regression of activity is unduly prolonged.¹⁶ The effect of this is to cause the regression wave (with its $(-)$ forward pole) to travel in this direction. Thus, the electrode overlying the infarct, which had previously recorded a $(+)$ RS-T deviation, now records a $(-)$ T wave, or vice versa.

In applying these principles to human myocardial infarction, certain facts must be kept in mind:

1. The infarct that develops after coronary artery occlusion (thrombosis or embolism) may be analyzed as if it were localized to the sub-epicardial region, as with experimental injury to the surface of the ventricles.⁸

2. The region of the heart affected may be the anterolateral surface of the left ventricle (anterior infarcts); or the inferior surface of the left ventricle (posterior infarcts).¹²

3. The pathology observed with acute coronary insufficiency may be compared to sub-endocardial injury produced experimentally.^{13,14}

Anterior Infarcts (Q-1-T-1 Type)

On the basis of the theoretic considerations outlined above, the anterior precordial leads and the aVl lead which overlie and face the infarct¹² should present a Q wave and a $(+)$ RS-T segment deviation. The aVr and the aVf leads, facing the surrounding vital tissue, should record a $(-)$ RS-T segment deviation.

This actually occurs, and the characteristics of anterior infarcts are illustrated in Fig. 3.

It will be noted that there is a reciprocal relation between the RS-T segment deviations and the later T wave changes of the aVl and aVf

leads, RS-T being $(+)$ in the aVl lead, $(-)$ in the aVf lead, and T becoming $(-)$ in the aVl lead and $(+)$ in the aVf lead.

There is still another important point to be made. The Q in the aVl lead creates the potentiality for Q-1.^{2,4} Its presence, therefore, may be considered as more significant than a Q-1. (However, a small Q-aVl like a small Q-1 may be present normally.)²

Anterior Infarction Without Characteristic Patterns in the Standard Leads

When the infarct is small, Q waves may not appear, and the RS-T segment deviations, limited to the leads facing the infarct, may, in the case of anterior infarction, be seen in only one of the precordial leads, and the aVl lead. In such cases the aVl lead has a small Q and a characteristic flattening of the RS-T segment, with a coved or $(-)$ T (Fig. 4).

In fact, if the infarct is situated on the lateral surface of the left ventricle, even the precordial leads may show only minimal changes. In such cases, the standard leads will show only inconstant and atypical changes in the T wave, which cannot be interpreted as indicating an acute infarct.

The pattern in the aVl lead may therefore be the sole electrocardiographic evidence of a recent occlusion. We have seen many such cases, and Fig. 4 illustrates this well. It will be noted that although the precordial lead at the onset of the infarction was characteristic—even when this had returned to approximately its normal pattern—the aVl lead retained evidence of the cardiac damage.

Posterior Infarcts (Q3-T3 Type)

Again on theoretic analysis, an electrode placed over the infarct (as a low esophageal lead¹⁵) or facing it, as in the aVf lead, or leads from the lower posterior back, should present a pattern similar to that obtained with precordial and aVl leads in anterior infarction—namely, a Q wave and a $(+)$ RS-T segment deviation.^{1,12,15}

Furthermore, the aVr and the aVl leads which face the surrounding vital tissue should record a $(-)$ RS-T segment deviation. This actually occurs,^{2,12,15} and the characteristics of posterior infarction are described in Fig. 3.

As with anterior infarcts, there is a reciprocal relation between the patterns of the aVl and aVf leads. In this instance the RS-T of the aVl lead is $(-)$; that of the aVf lead, $(+)$. Later the T of the aVl lead becomes $(+)$, and that of the aVf lead $(-)$.

Here again it will be noted that the Q of the aVf lead contributes the potentiality for Q3. Therefore, a Q-aVf when present is more significant

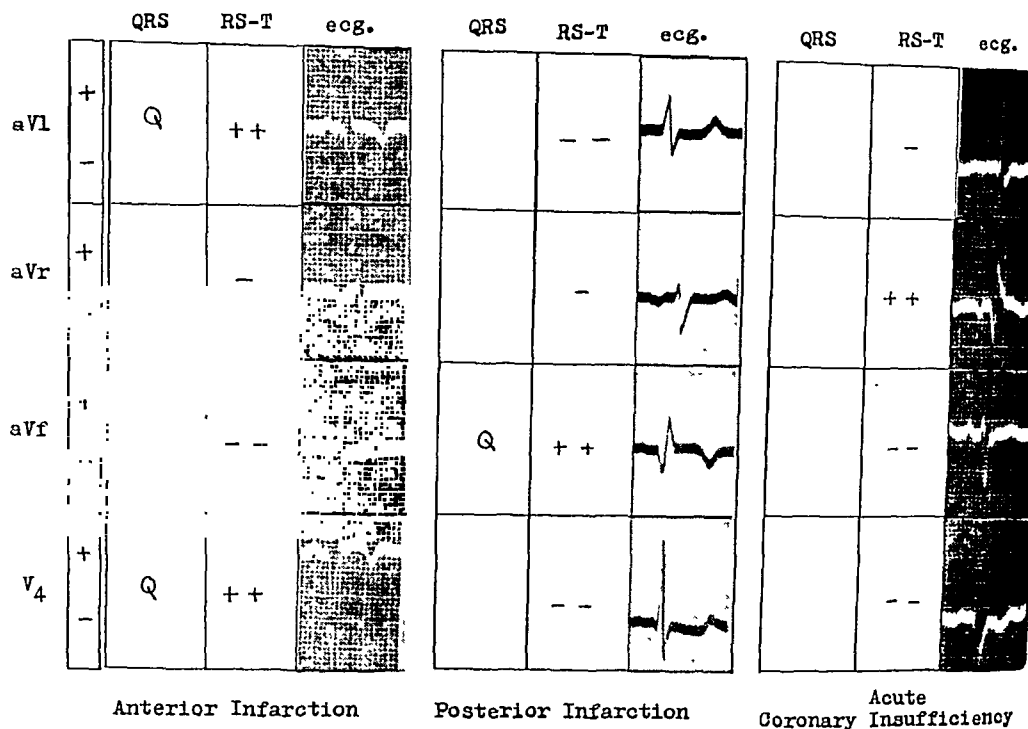


FIG. 3. Unipolar lead patterns in myocardial infarction due to coronary artery occlusion and acute coronary insufficiency.

When one of the coronary vessels is occluded, or when there is anoxemia of the cardiac musculature, tissue injury occurs, and certain physiologic changes take place, regardless of the nature of the damaging agent, or of the location of the infarct.

First, there is the production of a current of injury. This is due to the fact that injured tissue as well as active tissue is relatively (-) to uninjured or inactive tissue. Therefore, if a strip of muscle be injured, a potential difference will exist at the boundary between the vital and injured muscle. This would be recorded by the electrocardiograph as a constant deflection of the string if it were not for the fact that its effect is neutralized during standardization. The original current of injury, therefore, does not appear on the electrocardiogram.

Second, RS-T deviations appear, for the following reason: As the electrical impulse reaches the boundary between vital and injured muscle, the difference in potential and the injury current between these two regions disappear. However, the neutralization current, flowing in the opposite direction to the original injury current, is still in the circuit; its effect is to make the string move exactly in a direction opposite to that which the original current of

injury would have moved it. This produces the RS-T deviation. As long as the area adjacent to the injured muscle is electrically active, the RS-T deviation persists.

Whether the RS-T deviation will be (+) or (-) depends solely on the relation of the electrode to the infarcted area. An electrode overlying or "facing" the infarcted area will produce a (+) RS-T deviation; one that faces the normal surrounding and underlying tissue will produce a (-) RS-T segment deviation.^{2,8,12}

Third, accompanying the RS-T segment deviations, Q wave patterns may appear if the infarct is large and extensive enough. The reason for their appearance is that the impulse in the heart travels from within outward so that the endocardium remains relatively negative to the epicardium, and a lead facing the endocardium (as within the ventricular cavity; over one of the large valvular orifices at the base of the heart; or from the aVr lead) will tend to be negative throughout the QRS complex.²

When a large area of the ventricular wall has been damaged, the electrical effects normally present in the tissue disappear, and an electrode overlying the infarct may be considered as facing the endocardial cavity, which is nega-

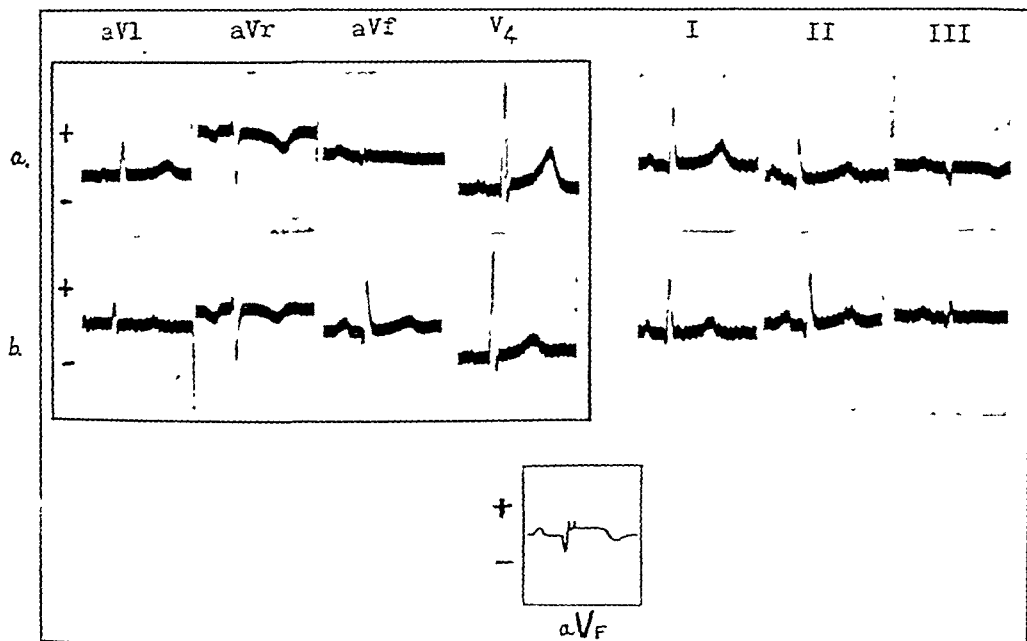


FIG. 5. Atypical posterior infarction. ♂ 42.

(a) Twenty-four hours after attack. Standard leads and 6 precordial leads (only V4 shown above) within normal. In the aVf lead (from left leg) there is a characteristic pattern present, consisting of a small diphasic QRS with an initial Q, and a coved T. (See also small box.)

(b) Ten days later. All leads have returned to normal

Pericarditis

A complicating pericarditis may further obscure the picture of anterior or posterior infarction. Since the patterns of pericarditis are due to damage of the subepicardial muscle,⁹ the RS-T deviations and T wave changes may be explained as in myocardial infarction.

When the pericarditis is extensive, (+) RS-T segment deviations occur in the aVl and aVf leads without Q waves, so that an anterior, or a posterior, infarct complicated by extensive pericarditis will lose the reciprocal relations between the aVf and aVl leads, and the RS-T segment deviations in both leads will be (+). If there are signs of both anterior and posterior infarction (with Q wave changes), it may be impossible to diagnose a complicating pericarditis electrocardiographically.

Conclusions

In the preceding pages, the technic and principles underlying the use of the author's system of augmented unipolar extremity leads were briefly reviewed.

The use of these leads is based on fundamental physiologic principles which can be directly applied.

This I did in analyzing the patterns of myocardial infarction due both to coronary artery thrombosis and to acute coronary insufficiency. I also pointed out how even the patterns of pericarditis could be analyzed with this technic.

However, the great value of augmented unipolar extremity leads lies in the diagnosis of coronary artery disease when standard leads are equivocal. Not only have I employed augmented unipolar extremity leads in diagnosing myocardial infarction; but I have found that cases of suspected angina pectoris, where standard leads are normal, will often show evidence of myocardial damage in the augmented unipolar extremity leads (to be reported in a separate communication). Furthermore, I have used these leads in the diagnosis of pulmonary embolism, which may simulate posterior occlusion in standard leads. However, the limitations of this paper prevent full discussion of these problems, the effects of digitalis and other drugs, as well as many other aspects of electrocardiography. Some, as I have already stated, have appeared;^{1,2} others are in preparation.

Summary

Although the research worker has studied unipolar extremity potentials for some time, now,

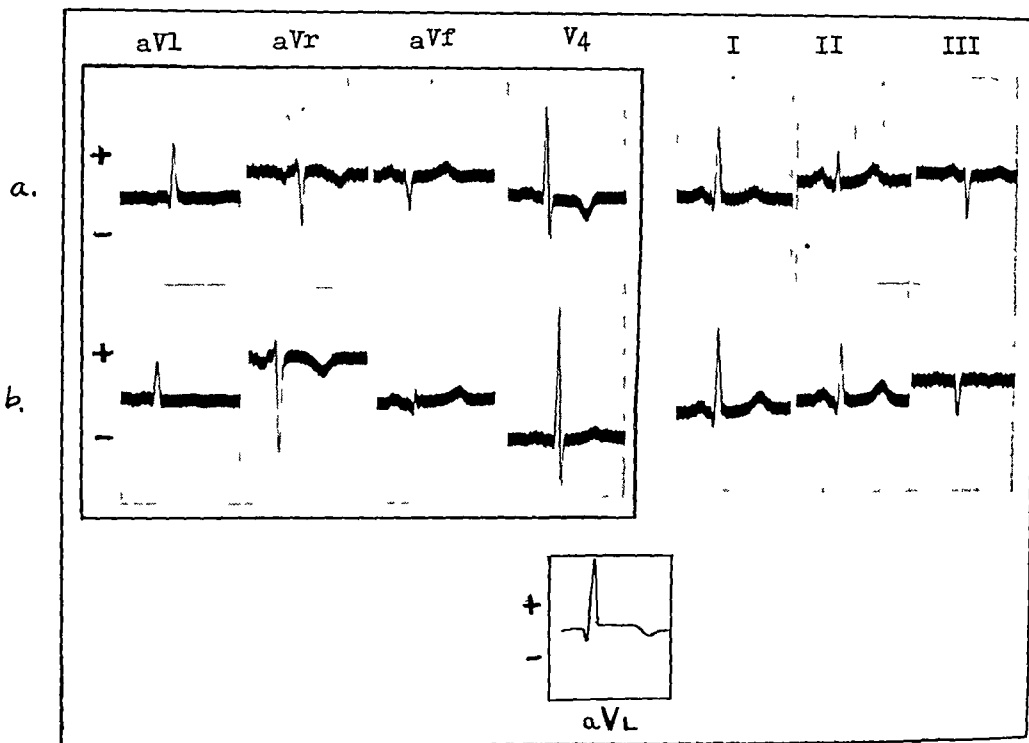


FIG. 4. Atypical anterior infarction. ♂ 39.

(a) Forty-eight hours after attack. Standard leads are normal. Precordial lead V4 has a (-) T. The aVL lead (from left arm) shows a characteristic small Q, flattening of the RS-T, and a (-) T. (In the small box a typical pattern is drawn.)

(b) Six weeks later. Standard and precordial leads are within normal. The aVL lead is still abnormal. The Q in the aVF lead is also abnormal.

than a Q3 (when its amplitude tends to be $\frac{1}{3}$ or more of the entire QRS complex).

Posterior Infarction Without Characteristic Patterns in the Standard Leads

When the infarct is small, precordial leads as well as standard leads are often within normal limits. In such instances, the aVF lead, which faces the infarct, will show a characteristic pattern: a Q wave associated with a small QRS complex, and a (+) RS-T segment deviation with a coved T (Fig. 5).

Acute Coronary Insufficiency

In acute coronary insufficiency there occur scattered focal areas of myomalacia and necrosis, most marked in the subendocardial region.

Using a line of reasoning similar to that employed for anterior and posterior infarction, one would expect that a lead facing the endocardium, the aVR lead, would record a (+) RS-T segment deviation, whereas the aVL, the aVF, and the

precordial leads, which face the surrounding vital tissue, should record (-) RS-T segment deviations. Since a Q is a normal phenomenon in the aVR lead, its presence is not pathognomonic.

Fig. 3 illustrates the characteristic pattern of acute coronary insufficiency. The patterns in angina pectoris depend on a similar mechanism.

Multiple Infarcts

Not only may a recent infarct occur in a heart previously damaged, but also multiple acute infarcts may occur. Old infarction may often be recognized by Q wave patterns which may be permanent.

When multiple acute infarcts occur, signs of anterior infarction overshadow those of posterior infarcts in the precordial leads, whereas the characteristic RS-T segment deviations and Q waves of both types will be seen in the aVF leads and a VL leads. The aVR lead responds, in a general way, similarly to either anterior or posterior infarction. (Fig. 3).

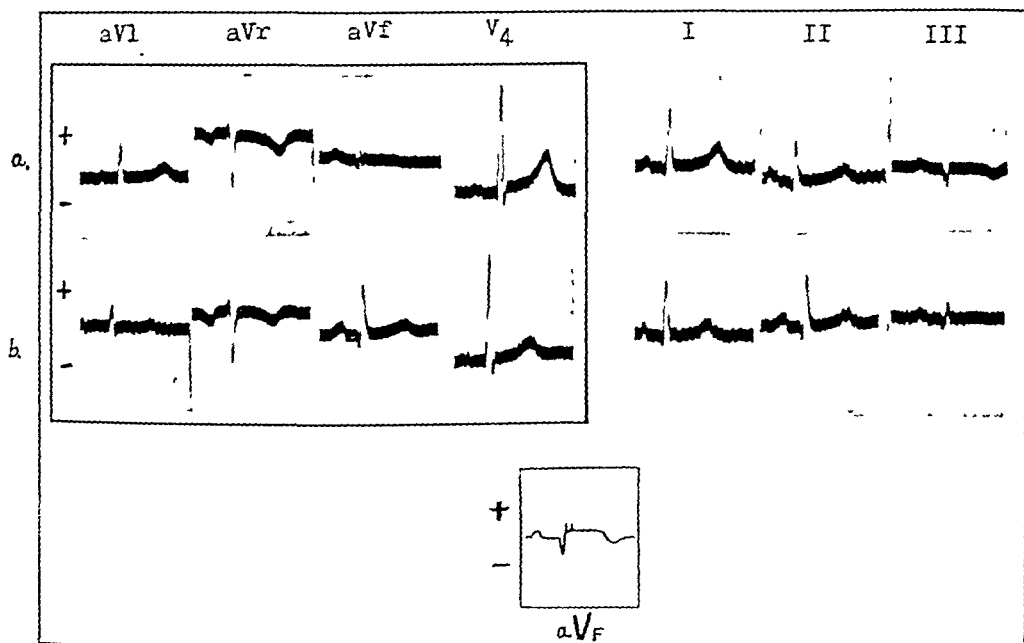


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Conclusions

In the preceding pages, the technic and principles underlying the use of the author's system of augmented unipolar extremity leads were briefly reviewed.

The use of these leads is based on fundamental physiologic principles which can be directly applied.

This I did in analyzing the patterns of myocardial infarction due both to coronary artery thrombosis and to acute coronary insufficiency. I also pointed out how even the patterns of pericarditis could be analyzed with this technic.

However, the great value of augmented unipolar extremity leads lies in the diagnosis of coronary artery disease when standard leads are equivocal. Not only have I employed augmented unipolar extremity leads in diagnosing myocardial infarction; but I have found that cases of suspected angina pectoris, where standard leads are normal, will often show evidence of myocardial damage in the augmented unipolar extremity leads (to be reported in a separate communication). Furthermore, I have used these leads in the diagnosis of pulmonary embolism, which may simulate posterior occlusion in standard leads. However, the limitations of this paper prevent full discussion of these problems, the effects of digitalis and other drugs, as well as many other aspects of electrocardiography. Some, as I have already stated, have appeared;^{1,2} others are in preparation.

Summary

Although the research worker has studied unipolar extremity potentials for some time, now,

with the use of augmented unipolar extremity leads, the *clinician* has access to this new and simple modality of electrocardiography.

1814 Grand Concourse
New York City

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FITTING HANDICAPPED WORKERS TO JOBS

Industry, which in normal times has been loath to employ the handicapped worker, is now recognizing that many handicapped persons may be as efficient as those with full physical equipment and may be safer workers if they can be properly placed, trained, and supervised. *Manpower Review*, a publication of the War Manpower Commission, has recently considered the use of handicapped persons in industry as an aid to the war effort. The fitting of a handicapped person to his job demands that there be a breakdown of the requirements for all jobs in specific relationship to the exact procedures required, such as the degree of skill and strength demanded and conditions which surround the job.

Dovetailing with the detailed job analysis there must be an equally detailed analysis of the capability of the worker. When these frameworks of information have been established, adaptation of the handicapped person to the job becomes relatively simple. Adaptations of machinery may be made, such as shifting hand or foot levers so that they can be used by workmen with missing hands or feet.

From Germany comes a report concerning measur-

ing devices which use variations in tonal qualities of sound, such as a bell to enable blind workers to "read" the instrument. Persons unable to stand or walk much may be placed in sedentary jobs to which all material is brought and from which finished products are taken away by other workers or conveyors. A sample job analysis sheet indicates the demands for walking, standing, sitting, climbing, etc.

A tabulation of the estimated number of persons with various types of impairment by types of pre-employment service needed indicated that there were 901,000 with hearing impairment, 337,000 blind in one or both eyes, 1,849,000 with orthopaedic impairment, 1,186,000 with hernia, 976,000 with hemorrhoids, and more than 11,000,000 with chronic diseases. This list was based on an estimate by the United States Public Health Service. The latent manpower in these handicapped workers can be significant in the war effort. The physician, particularly the industrial surgeon, management, and labor can cooperate in the constructive utilization of this vast potential reserve.—*J.A.M.A.*

VITAMIN C CONTENT OF ORANGES

In a recent study of the relation of season, weight, and price to the vitamin C content of oranges, Arthur D. Holmes, Ph.D., James A. Patch, S.B., and Francis Tripp, M.S., report in the *New England Journal of Medicine* that oranges contribute about 624,080,000 Gm. of vitamin C annually to the human dietary.

In their study the authors selected oranges from local retail stores, both chain store organizations and privately owned shops, and also from street hucksters, in order to get a cross section of the types of oranges eaten by the average family.

Representative fruit was purchased in March, June, September, and December. Average per orange values for the March fruit are: weight, 206 Gm.; cost 28 cents per dozen; juice, 77 cc.; vitamin C content per 100 cc. of juice, 52 mg. In order to obtain the 75 mg. of vitamin C that is considered

adequate for the average adult, 144 cc. of juice, at a cost of 4.8 cents, are required. Similar values for June were 150 Gm.; 29 cents per dozen; 74 cc. of juice; 45 mg. of vitamin C, and 176 cc. of juice at a cost of 5.9 cents. In September the values were 160 Gm.; 27 cents per dozen; 76 cc. of juice; 39 mg. of vitamin C; and 196 cc. of juice at a cost of 5.9 cents.

The December values of fruit tested were 212 Gm.; 31 cents per dozen; 101 cc. of juice, 56 mg. of vitamin C, and 136 cc. of juice at 3.6 cents.

The weight of the oranges varied greatly at all seasons of the year, but the winter oranges were slightly more than one-third heavier than the fruit of the fall and summer seasons.

There was no consistent relation between cost and weight during the different seasons, and the cost was varied throughout the year.

CLINICOPATHOLOGIC CONFERENCES

DEPARTMENTS OF MEDICINE AND PATHOLOGY, NEW YORK POST-GRADUATE
MEDICAL SCHOOL AND HOSPITAL, COLUMBIA UNIVERSITY

Conducted by: HERMAN O. MOSENTHAL, M.D., and MAURICE N. RICHTER, M.D.

Date: November 17, 1942

History

Case J66833

DR. SYDNEY STEINBERG: This patient was first seen at another institution on October 3, 1941, where the following facts were obtained:

Since 1936 she had suffered frequent bilateral frontal headaches which were accompanied at times by dizziness and spots before her eyes. She had had episodes of joint pains for nine months, when the ankles, hands, and fingers became swollen, red, and tender. Fever was often present with these attacks. For the past half-year there had been red skin lesions on the arms, legs, and face. Since June, 1941, she had complained of an occasional sore in her mouth and pain in the lower right side of her chest. She had lost 30 pounds since February, 1941. For one week it was noticed that there were occasional involuntary movements of her hands.

Physical Examination.—Physical examination revealed a well-developed, fairly well-nourished white woman who appeared chronically ill. She smacked her lips frequently, had slight difficulty in forming her words, and manifested an occasional involuntary twitch of her hands. In the butterfly area of her face there were numerous dilated venules. There were pink maculopapular and occasional nodular lesions over the forehead and cheeks. Polymorphous erythematous lesions which were covered with a whitish scale were present on the arms and legs. In the left fundus were 2 whitish exudates. Small ulcerations with a whitish exudate were present on the right anterior tip of the tongue. The lymph nodes were moderately enlarged throughout. The lungs were clear except for dullness and diminished breath sounds over the right lower lobe. The heart was normal. The blood pressure was 138/96 mm. of mercury. Abdominal, genital, and neurologic examinations were essentially negative.

Laboratory Data.—Blood count: hemoglobin 95 per cent, white blood count 2,800; normal differential—platelets 45,000, reticulocytes less than $\frac{1}{2}$ per cent. Urinalysis: A specific gravity

of from 1.012 to 1.018, a trace to 3 plus protein, a trace of bile, 1:10 urobilin, an occasional hyaline cast, 1 or 2 red blood cells, an occasional white blood cell. Phenolsulfonphthalein test: 25 per cent excretion in two hours. Tourniquet test: strongly positive. Sedimentation rate, 45 mm. per hour. Blood chemistry: urea nitrogen 14 mg. per cent, sugar 60 mg. per cent, cholesterol 380 mg. per cent, total serum proteins 6.0 Gm. per cent, serum albumin 2.3 Gm. per cent, serum globulin 3.9 Gm. per cent, serum calcium 7.4 mg. per cent, phosphorus 4.2 mg. per cent, chlorides 585 mg. per cent, uric acid 4.7 mg. per cent, icterus index 11 units, phosphatase 136 I.A. units, bilirubin 1.3 mg. per cent, Van den Bergh delayed positive. The blood Wassermann was anticomplementary, the Kahn test was negative, and a blood culture was negative. Red cell fragility test was normal. The tuberculin test was negative. The bone marrow was hypoplastic with a normal cell distribution. Stool examination was negative for occult blood. The basal metabolic rate varied from plus 26 to plus 1. Blood heterophils negative. Biopsy of skin: degenerative collagen changes and hemorrhages in the upper corium compatible with a diagnosis of lupus erythematosus. Electrocardiogram: right axis deviation, QRS low, T_2 and T_3 low, T_4 semi-inverted. X-ray of the chest showed a small collection of fluid at the right base. A flat plate of the abdomen was negative.

The patient was discharged to the care of her private physician.

Post-Graduate Hospital Admission

She was admitted to the Post-Graduate Hospital on April 30, 1942. Since her discharge from the first hospital the patient had been bedridden. Her chief complaints were of joint pains, right chest pain, and point tenderness of the skin. Nourishment was well taken until two days prior to admission. She had run a low-grade temperature with occasional spikes to 103 or 104 F. Her pulse ranged from 120 to 130 per minute. For five weeks before admission there were periods lasting from fifteen to twenty minutes during which she was irrational.

Physical examination revealed an emaciated, chronically ill woman who was irrational. She rolled her head from side to side, moved her arms about purposelessly, and was incontinent of urine and feces. There were small dilated venules over the butterfly area of the face and a very small erythematous lesion below the left breast. Neither jaundice nor cyanosis was present. Eyes, ears, nose, and throat examinations were negative. Fundi were not examined. There was dullness, breath sounds were diminished, and medium moist rales were present over the base of the right lung. The heart showed nothing significant except for a pulse rate of 130 per minute. The abdomen was negative. There was marked weakness and muscle atrophy of the upper and lower extremities. The reflexes were physiologic.

Laboratory Data.—Blood count: red blood count 3,410,000, hemoglobin 11 Gm., white blood count 6,250; differential—polymorphonuclears 88.5 per cent, lymphocytes 9.5 per cent, monocytes 4.0 per cent. Corpuscular volume was 32 per cent. Urinalysis: specific gravity 1,008 to 1,012, protein 1 to 4 plus, a few red blood cells, 1 white blood cell per high power field, many hyaline and fine and coarse granular casts. Blood chemistry: cholesterol 240 mg. per cent, esters 125 mg. per cent, ratio 51 per cent; urea nitrogen 22.9 mg. per cent, nonprotein nitrogen 38 mg. per cent, ratio 59 per cent; creatinine 1.3 mg. per cent, chlorides 610 mg. per cent, glucose 65 mg. per cent, inorganic phosphates 5.8 mg. per cent, total calcium 8.0 mg. per cent. Serum proteins: (May 4, 1942) total 4.9 Gm. per cent, albumin 1.9 Gm. per cent, globulin 3.0 Gm. per cent, ratio 0.6; (May 25, 1942) total 4.2 Gm. per cent, albumin 1.9 Gm. per cent, globulin 2.3 Gm. per cent, ratio 0.8. Carbon dioxide combining power was 31.5 volumes per cent. The icterus index was 5.5 units. The sedimentation rate was 110 mm. per hour. Blood Wassermann was negative and a blood culture was negative. X-ray of chest: the heart was relatively a shade large and there was slight peripheral interlobar thickening.

Clinical Course.—The temperature ranged from 98.6 to 106 F. with an average daily fluctuation ranging from 100 to 102 F. The pulse rate ranged from 88 to 180, running generally at about 120. The patient remained irrational throughout and had no sphincter control. Two blood transfusions were given. Sulfadiazine was administered from May 13 to May 20 until a total of 40 Gm. was reached and a blood level of 28 mg. per cent was obtained. However, the patient's course was steadily downhill, and she died thirty-three days after admission. The day

before death, the blood pressure was 180/110 mm. of mercury.

Discussion

DR. A. WILBUR DURYEE: This patient probably died from lupus erythematosus disseminatus. The diagnosis was made by skin biopsy. Let us review her past and present history and the laboratory findings and determine, if possible, the relationship of the symptoms and signs to this disease and other possible diseases.

The onset of her symptoms was about six years prior to her death. They started with cerebral complaints of headaches, dizzy sensations, and "spots before her eyes." Since we have no record of any objective findings at that date we can only conjecture as to the exact cause of these symptoms. As it is now known that lupus erythematosus involves practically all parts of the body, the headache, dizziness, and visual disturbances could have been primary either in the brain tissue (collagenous tissue) or in the vascular supply to the brain. It seems unlikely that renal, cardiac, or other damage found at a later date was severe enough to produce these complaints at the onset. A third possibility is that there was no relationship between the reported symptoms of 1936 and the primary disease. A sinusitis or other pathology could have been responsible. This is likely, for there was an interval of nearly five years during which no new symptoms were reported. The usual prodromal periods generally last weeks or months. Symptoms and signs definitely related to this disease did appear about nine months before her first hospital admission on October 3, 1940. A high percentage of all patients with lupus erythematosus complain of body aches and pains with joint involvement as manifested by redness, swelling, and tenderness.

Six months previous to the patient's first admission, the typical skin lesions first appeared. The literature reports that the butterfly red area on the face is present in a large number of these patients. However, since we now recognize the fact that pathologic changes in this disease are similar to those in scleroderma, dermatomyositis, etc., it is possible that this statement may mislead us and that there may be cases that are overlooked because this finding is not present. The reported lesions on the tongue may or may not have been caused by this disease. It is possible that they were traumatic or secondary or not related. It is, however, very likely that the fundus exudates were associated with vascular lesions, especially since this woman had many symptoms suggestive of active pathology in the brain, as manifested by speech difficulty and the involuntary twitches

of her hands (despite the reported normal neurologic examinations).

In her first reported physical examination, it is interesting to note there were no cardiac signs. Since about 20 per cent of all cases have gross cardiac pathology, one naturally would devote special attention to the heart. The electrocardiogram showed changes which would suggest poor cardiac muscle function and this in turn might be an indication of active disease in the heart. The only other finding of note on her admission physical report is observed in the right lower lobe of the lung. She had complained of pain in this location, and a pleurisy or pneumonitis on the basis of the primary disease is quite likely. Glandular adenopathy is an almost constant finding.

Turning to the laboratory data, we note many findings which confirm the diagnosis of lupus erythematosus.

Blood count and bone marrow: The leukopenia and the thrombocytopenia have been reported frequently in this disease. Bone marrow studies usually show a depression of activity in the early stages of the disease, but many reported cases show a leukocytosis at a later date, especially if a complicating infection occurs.

Urinalysis: Since in this disease the kidneys usually show marked changes in the vascular elements, especially in the afferent glomerular arterioles, the proteinuria, the red blood cells, and the casts noted in this case are to be expected. Likewise, the reported reduced phenolsulfonphthalein secretion of 25 per cent would follow.

Tourniquet test: There is little in the literature concerning capillary fragility in this disease. However, skin hemorrhages are reported frequently and petechiae are sometimes mentioned, and with the pathology affecting the vascular system one may expect a "strongly positive" test.

Sedimentation test: An increased rate is nearly always reported, and one would expect this, unless undue liver damage was present coincidentally.

Tuberculin test: The negative report is in agreement with the present feeling that this disease is not due to the tubercle bacillus. However, in acute stages of tuberculosis this test may be negative, and it therefore does not rule this out.

Basal metabolic rate: One would expect variations in this rate depending on remissions, exacerbations, and febrile states. Actual changes in the thyroid gland might be directly responsible for the variations.

Wassermann test: False-positive reactions and anticomplementary reports are often found in the case reports. I will leave their explanation to the serologist.

Blood chemistry: In reports in the literature, these findings vary greatly, depending largely on the extent and site of the various lesions, especially those involving the kidneys. In this patient there seems to have been a loss of albumin as noted in the urine and blood serum albumin. Together with this alteration, the serum calcium seems to have been lost and the phosphates held back, while the cholesterol was elevated. Thus, we have a picture simulating nephrosis. There was no nitrogen retention of any degree.

The alteration in the calcium and phosphorus could be associated with the reduced parathyroid activity on the basis of local lesions in these glands. The reported involuntary movements might indicate a hypoparathyroidism. No Chvostek sign is reported.

Elevated blood uric acid has been reported in this disease, in scleroderma, and in dermatomyositis. The slight changes in the icterus index, bilirubin, and the Van den Bergh test suggest some liver involvement.

Blood culture: Negative reports are invariably the rule.

Blood heterophils, red cell fragility test: Negative results tend to rule out blood dyscrasias as the primary disease.

Biopsy of the skin: The biopsy of the skin, as reported, is not typical for lupus erythematosus but might be found in scleroderma, Libman-Sachs syndrome, periarteritis nodosa, and dermatomyositis.

Electrocardiogram: This is suggestive of myocardial damage, with low voltage QRS and low T_2 and T_3 and semi-inverted T_1 .

X-ray of chest: Polyserositis is common in lupus erythematosus, and the pleural effusion therefore helps to confirm the diagnosis.

Clinical Course.—At the time of the patient's discharge from the first hospital, one would be justified in making a diagnosis of lupus erythematosus from the above information. When discussing differential diagnosis, other possible diseases will be mentioned and the reasons for ruling them out presented.

The period from her discharge, including readmission and study at the Post-Graduate Hospital, helps to confirm the diagnosis of lupus erythematosus. Lesions progressed and continued to involve the joints, the pleural cavity, and also the skin. Either the primary cerebral lesion was extended or the toxic manifestations of brain irritation became progressively worse. The presence of low-grade fever with an occasional spike in temperature is almost a constant finding in this malignant form of the disease.

The increased tachycardia would indicate

primary heart involvement or secondary toxic effects.

From the laboratory standpoint, the findings at the Post-Graduate Hospital confirmed those previously discussed. The white blood count remained low or normal, but there was an increase in the polymorphonuclear count; a secondary anemia was developing.

The urine continued to point to renal damage of a considerable degree, although the blood nitrogenous products remained relatively low.

The calcium and phosphorus findings were consistent with those reported and discussed above. There was a progressive drop in the total serum proteins at the expense of the albumin, and a secondary acidosis.

The normal ratio of cholesterol and esters and the normal icterus index would indicate relatively little involvement of the liver. Likewise, there had been a drop in the blood cholesterol.

Treatment.—As in most reported cases, treatment failed, although in the literature there is one case (the diagnosis not entirely proved) which apparently was cured by sulfonamides. This patient under discussion here, however, showed no beneficial effect from this therapy, despite a blood level of sulfadiazine of 28 mg. per cent. Until we know more of the cause of this disease, all discussion of therapy must naturally be on a theoretic basis. Treatment must be symptomatic.

Cause of Death.—In a disease with such diffuse distribution of the pathologic process, the actual cause of death depends on the organ most severely damaged and its relative importance in maintaining life. In this case, it would appear that the renal damage was the most marked and consequently was the likely cause of death. The terminal rise in blood pressure would be in favor of this explanation against cardiac failure. However, one would expect to find myocardial damage as a close second cause. Cerebral involvement (primary or toxic) did not seem to manifest sufficient signs to be considered as the cause of death. There was no reported picture of tetany or acidosis severe enough to cause death. Pulmonary or liver damage was apparently only moderate, and the gastrointestinal system seemed only slightly affected. Except for the parathyroids, the other endocrine glands seemed to be relatively free of involvement as well as can be determined from the information at hand.

Differential Diagnosis

Typhoid fever is suggested by the headaches, leukopenia, body pains, and fever. It is ruled out, however, by the course of the disease, the

rapid pulse, the negative blood cultures, and the lack of gastrointestinal symptoms.

Polyarthritis of a rheumatoid type is suggested by the joint involvement. It is ruled out by findings pointing to systemic disease, although at onset this diagnosis would suggest itself and be substantiated by a high sedimentation rate and the local findings.

Tuberculosis would be suggested by the loss of weight, the fever, and the chest findings of pleural effusion. This disease tends to be ruled out by the lack of lung involvement (x-ray), the finding of renal lesions, and other visual lesions. However, in view of no sputum reports, no examination of urine, stool, or gastric contents for tubercle bacilli, one cannot definitely disregard this causative agent. Although the tubercle bacillus rarely has been isolated in this disease, it has been accused frequently of being the causative agent, probably because of the similarity of the skin lesions.

Syphilis.—The anticomplementary Wassermann, although not even suggestive of lues, makes one want to repeat this test, as any disease affecting the body as a whole must suggest syphilis. However, lues is apt to be limited to lesions of vascular or neurologic tissues. The reported renal and other visceral lesions are rarely luetic. Further blood serologic studies rule out this disease.

Blood dyscrasias, especially the leukemias, are suggested by the leukopenia, the thrombocytopenia, the enlarged lymph glands, the skin lesions, the fever, malaise, loss of weight, etc. However, further blood studies (counts, etc.), the skin biopsy, and the lack of splenic or liver enlargement tend to rule out these diseases.

Brucellosis.—Joint involvement, an irregular fever, a varying white blood count, and glandular adenopathy, suggest this diagnosis. On the other hand, negative blood cultures, renal involvement, the presence of skin lesions, and the course of the disease do not support a diagnosis of brucellosis. One would have liked to see agglutination tests for this disease done on the patient.

Acute Infectious Mononucleosis.—The glandular adenopathy, the fever, and the body pains suggest this disease. It is ruled out by the blood count, the heterophil reaction, and the clinical course.

Because of the generalized involvement of the pathologic process, many other diseases are suggested, and unless one considers the entire picture, he is apt to be led into faulty diagnoses. Primary renal disease, neoplasms, subacute bacterial endocarditis, Pick's disease, etc., should be quite readily eliminated.

Finally, since this disease is so difficult, from

a pathologic standpoint, to differentiate from periarteritis nodosa, dermatomyositis, and scleroderma, these disorders must be ruled out. However, the patient showed no skin changes typical of scleroderma, no eosinophilia, as found in periarteritis nodosa, and no clear-cut muscular changes, as found in dermatomyositis. However, it could be any one of this group in an atypical form.

Pathology.—Although this part of the discussion is in the hands of another department, I shall, in closing, attempt to prognosticate the changes that one would expect to find in this case from its history, clinical course, and laboratory findings.

If the diagnosis of lupus erythematosus is correct (or if the patient had an atypical form of any of its associated diseases), we should expect to find changes in the collagen throughout the body as demonstrated by swelling and fibrinous degeneration.

In the blood vessels this will be found by basement membrane changes in the intima with swelling and closure of the lumen and in some cases by similar changes throughout the entire wall of the vessels. This may be complicated by an arteritis in certain organs.

The skin changes have been reported by biopsy.

The cerebral changes are probably on a vascular or toxic basis.

The cardiac changes probably involve the collagenous material in the muscle and perhaps in the coronary vessels. There should be no major coronary vessel occlusions (unless terminal). The endocardium may be involved, but the clinical picture does not point to vegetations or valvular involvement to any degree. Aschoff bodies should not be found (although a few reports have noted them).

The kidneys should show considerable involvement of the glomeruli, especially with involvement of the afferent arterioles with possible areas of degeneration or necrosis in the tuft and the "wire loop" picture frequently described. There may be some basement membrane changes in the tubules.

The lymph glands may show areas of necrosis and healing.

The parathyroids may show vascular changes and alterations in the collagenous material. The liver may show local areas of necrosis. Similar changes should be found in the pleura and perhaps in the lung tissue.

Any other tissue may reveal changes of a similar nature but insufficient to have produced symptoms.

Dr. Duryee's Diagnosis

Lupus erythematosus disseminatus.

Pathology

DR. MAURICE N. RICHTER: Much of the discussion can be eliminated because the case is fairly typical of lupus erythematosus, and we can confine ourselves to the actual findings. On the mitral valve there were small rounded verrucae on the valve cusp. Near the tip of the left ventricle there was a soft grayish mass beneath the endocardium and in the right ventricle there were 3 similar soft masses, also on the endocardial surface. In the lungs there were scattered areas of lobular pneumonia, with one small gangrenous area in the right lower lobe. There was no fluid in either pleural cavity.

The kidneys had coarsely granular surfaces. On the upper surface of the liver was a triangular area that was softer and a deeper red than the surrounding liver tissue, with a central grayish area, apparently necrotic. The other gross features are not of much interest.

Microscopically, the changes in the heart were of somewhat different types. They were found in both myocardium and endocardium. In the myocardium there were areas of interstitial edema with a basophilic change in the collagen that is best brought out in azure-eosin preparations. The areas in the ventricle that were noted grossly are places where this change had reached the endocardial surface. This fibrinoid degeneration of collagen and edema were accompanied by the presence of mononuclear cells, mainly lymphoid in type. The nodules described in the mitral valve were small verrucae in which a somewhat similar collagen change was noted.

This collagen change was not limited to the heart. Sections of the skin also showed change in collagen as well as degenerative changes in the walls of some of the smaller vessels.

In the kidney, changes in the glomerular loops were particularly striking. The capillary loops throughout the glomeruli were conspicuous and the basal membranes were thickened, producing a form of the so-called "wire loop" lesions. These glomerular changes were accompanied by hyaline or colloid droplets of the renal epithelium. Recent investigations indicate that this is not necessarily a degenerative lesion as formerly thought, but may be an indication of protein absorption from the tubules.

In the spleen a number of the central arterioles of the Malpighian corpuscles showed rather conspicuous concentric lamellae of fibrous tissue around them. This is the periarteriolar fibrosis that has been described recently as one of the characteristic changes in lupus erythematosus. The lymph nodes were not enlarged, but a number of them showed a considerable increase

in the number of plasma cells, as well as edema. These changes and others have been described recently by Fox and Rosahn as changes found in their cases of lupus erythematosus.

The triangular area of discoloration observed in the liver was probably an infarct. In the central portion the tissue is necrotic. A moderate amount of scarring was present, and it is possible that the change in the liver was there for some time. I have learned that while this patient was in another hospital a transient episode of rise in the icteric index occurred, but the conditions disappeared after a short time.

In the lung, as previously stated, there were areas of lobular pneumonia and an area of gangrene associated with thrombosis of one of the vessels.

Minute thrombi appear in other parts of the body—as, for example, the spleen. Numerous small thrombi of this type were observed, many of which appeared to be platelet thrombi.

There were also a few lesions that were not strictly associated with lupus erythematosus. One was in the esophagus where an area of ulceration occurred. A moderate amount of arteriosclerosis, particularly in the aorta, was also noted.

Pathologic Diagnoses

LUPUS ERYTHEMATOSUS DISSEMINATUS.

Verrucous endocarditis of mitral valve.

Mural thrombi, right and left ventricles.

Thrombosis of branches of pulmonary arteries.

Lobular pneumonia, bilateral.

Gangrene of lung, localized.

Infarction of the liver.

Arteriolar sclerosis of the kidneys.

Acute necrotizing arteritis of kidneys, skin, and diaphragm.

Periarterial fibrosis of spleen.

Acute esophagitis.

Chronic lymphadenitis, generalized.

Atherosclerosis of the aorta.

MAYER FELLOWSHIPS

The Committee on Medical Education of the New York Academy of Medicine has been entrusted with the award of four Fellowships of \$2,000.00 each for research with a view to advancement of knowledge in the following subjects: (1) the use of choline and other lipotropic factors in the prevention and treatment of fatty infiltration of the liver and hepatic insufficiency; (2) the action of ingested choline, lecithin, methionine, and inositol on precancerous lesions and disorders associated with neoplastic disease; (3) the effects of riboflavin, certain amino acids, and casein on the development and growth of cancer; and (4) study of the relationship between precancerous lesions of the mouth, hepatic insufficiency, and gastrointestinal disorders.

The funds for these Fellowships have been provided by Dr. Charles Mayer, of New York City.

The Committee requests that research workers, or laboratories engaged in studies along these lines or interested in research on these specified problems,

who desire consideration by the Committee charged with awarding these Fellowships, submit application for the desired award. This application should state the name of the individual who will conduct the research, the name of the laboratory or institution in which the work will be conducted, the special qualification, interest, or attribute of the investigator, and the institution which may justify the award. If the applicant has already conducted research in the specified field for which the award is sought, this fact should be stated and reprints of publications in this work by the author should accompany the application, together with any other facts or information deemed pertinent.

An approval of the director of the laboratory should accompany the application, if the application is not made by the director.

All applications should be sent in triplicate to Dr. Mahlon Ashford, Secretary of the Committee, not later than October 30, 1913.

YUCCA WOOD FOR SPLINTS

The Joshua tree, sometimes called the "Lily of the Desert," because of its huge blooms on crooked, upturned branches, has become an important factor in war surgery. Splints made from the big logs of the tree are very light, porous to the extent of supplying good air circulation, and pliable enough to be adapted to the shape of the injured limb. In Southern California and other parts of the Southwest the

extensive forests of Joshua trees, a genus of the yucca tree family, are being harvested, with eight-foot logs cut from the stems of the "giant lilies." The Joshua tree logs are hauled to Riverside, California, and other centers of Riverside and San Bernardino Counties, where they are cut, veneered, sanded, and made into splints. . . . *What Scientists Are Doing*, New York Herald Tribune

Postgraduate Medical Education

Programs arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York are published in this section of the JOURNAL. Members of the committee are Oliver W. H. Mitchell, M.D., chairman; George Baehr, M.D.; and Charles D. Post, M.D.

Cancer Teaching Day

A CANCER Teaching Day was held on April 28 at Phelps Hall in Binghamton. The afternoon program, beginning at 4:00 p.m., included the following subjects: "The Importance of Pathologists in the Cancer Program," Fred W. Stewart, M.D., pathologist, Memorial Hospital, New York City; "Treatment of Cancer of Head and Neck," William J. Hoffman, M.D., assistant attending surgeon, New York Post-Graduate Hospital, New York City; and "Cancer of the Larynx, Bronchi, and Esophagus," Chevalier L. Jackson, M.D., professor of clinical bronchoscopy and esophagoscopy, School of Medicine, Temple University, Philadelphia.

Following a dinner served at 6:15 p.m. at the Binghamton City Hospital, an evening program was heard. Subjects and speakers were: "Recent

Advances in the Etiology of Cancer," Cornelius P. Rhoads, M.D., director, Memorial Hospital, New York City, and professor of pathology, Cornell University Medical School, New York City; and "Cancer of the Stomach—The Problem of the Active Practitioner," A. H. Aaron, M.D., professor of clinical medicine, University of Buffalo, and Harry M. Murphy, M.D., instructor in medicine, University of Buffalo.

The instruction was presented under the auspices of the Broome County Medical Society, the Sixth District Branch of the Medical Society of the State of New York, the Tumor Clinic Association of the State of New York, the Medical Society of the State of New York, and the New York State Department of Health, Division of Cancer Control.

Plasma Therapy and Whole Blood Transfusion

A SINGLE lecture on "Plasma Therapy and Whole Blood Transfusion" was presented before the Rensselaer County Medical Society on May 11 by Earle B. Mahoney, M.D., assistant professor of surgery, University of Rochester School of Medicine and Dentistry, Rochester.

The meeting, which was held at 8:30 p.m. in the Health Center in Troy, was sponsored by the Medical Society of the State of New York, the State Department of Health, the Office of Civilian

Defense, and the Health Preparedness Commission of the State War Council.

These sponsors also presented a similar lecture for the Richmond County Medical Society on May 12 at 9:00 p.m. The meeting was held in the Public Health Building, Stuyvesant Place, St. George, Staten Island.

The speaker for the Richmond County group was Samuel Standard, M.D., assistant professor of surgery, New York University College of Medicine.

NEW NARCOTIC REGULATIONS

Under a recent amendment by the Treasury Department to Federal Narcotic Regulations No. 5, each narcotic prescription issued by a military physician for filling by a civilian pharmacy must show his signature, title, and other information which definitely establishes his identity.

In treating the personnel of the armed forces and their families, military physicians use, or prescribe from, official government stocks of narcotic drugs. Not all narcotics, however, are included in these official stocks and on occasion the required medication must be obtained from an outside source. In such instances, a prescription written on the stationery of the physician or of an Army or Navy hospital may be accepted by a civilian pharmacy for filling.

Military physicians are not required to be registered for narcotic privileges. Consequently, they do not have a number which in civilian practice must appear on each narcotic prescription and which the pharmacist usually looks for. However, military physicians who treat private patients in camp areas, or while on leave, must be registered and pay the special tax.—*Health News*

THE NEW PHARMACOPEIA

The appearance of a new edition of the *United States Pharmacopeia* is always an event in the allied professions of medicine and pharmacy. U.S.P. XII will, if anything, play an even larger part than its predecessors. So many pharmaceutical products have disappeared from the market or become difficult to obtain that a compendium of dependable basic medicines is more than ever important.

The new U.S.P. XII contains a total of 659 medicinal products, 160 of them new. Its standards will continue to furnish the basis of law enforcement for state and federal drug laws. It is official, not only in this country, but also in Puerto Rico, the Philippines, Cuba, Costa Rica, Panama, the Dominican Republic, Nicaragua, and other Latin American countries. There has been a Spanish edition for forty years.

Leaders in medicine and pharmacy have long held that the best type of medical practice demands individualized prescription, designed to meet the peculiar needs of each patient. The *United States Pharmacopeia* helps the practitioner to select the best drugs, standardized to ensure their quality, purity, and strength.—*J. Med. Soc. N.Y. Co.*

Medical News

American Medical Association 1943 Annual Meeting

Official Call

To the Officers, Fellows, and Members of the American Medical Association:

THE regular annual session of the House of Delegates of the American Medical Association will be held in Chicago, Illinois, beginning Monday, June 7, 1943.

There will be no Scientific Assembly of the Association during the year 1943.

The President-Elect will be installed as President at a meeting to be held at 8 p.m., Tuesday, June 8.

Attest:

OLIN WEST, *Secretary*
Chicago, Illinois
April 5, 1943

FRED W. RANKIN, *President*
H. H. SHOULDERS, *Speaker*
of the House of Delegates

Medical Insurance Plan for New York City

MAYOR F. H. LaGuardia has announced the formation of a committee to devise a cooperative medical insurance plan for moderate-income families in New York City.

The purpose of the plan is to insure families against heavy unexpected medical or surgical expenses by providing medical or surgical care, when necessary, in return for nominal periodic payments. It would be similar and supplementary to the hospital insurance plan of the Associated Hospital Service of New York.

The enterprise will be sponsored by the city, and various city agencies will cooperate as far as it is proper for them to do so. Presumably, however, the city will have no financial interest in the plan.

The members, in addition to Mayor LaGuardia, are as follows:

Dr. Ernest L. Stebbins, Health Commissioner; Dr. Edward M. Bernecker, Commissioner of Hospitals; Dr. Willard C. Rappleye, dean of the College of Physicians and Surgeons of Columbia University and former Commissioner of Hospitals; William Reid, City Collector; David M. Heyman, president of the Public Health Research Institute

of New York; Dr. J. Stanley Kenney, president of the Medical Society of the County of New York; Dr. Arthur F. Chace, president of the New York Academy of Medicine; Dr. David J. Kaliski, former president of the New York Academy of Medicine; Louis H. Pink, president of Associated Hospital Service; Dr. George Baehr, of the United States Public Health Service, who is chief of the division of health of the Office of Civilian Defense; Dr. William B. Rawls, chairman of the coordinating committee of the medical societies of the five counties in New York; Dr. Leo Price, head of the health center of the International Ladies' Garment Workers' Union; Miss Minnie Teitelbaum, representing the Congress of Industrial Organizations; Miss Constance Kyle, social worker, representing the American Federation of Labor; Dr. Neva Deardorf, representing the Greater New York Fund.

In addition to the committee, the Mayor said he was organizing the Friends of Medical Security, a group of those who are interested in the plan, but too numerous to serve on the committee. The friends, he said, will be kept in touch with developments by mail.

Women Doctors to Get Commissions

WITH the signing of the Sparkman Bill by President Roosevelt on April 17, women physicians became eligible for commissions in the Medical Corps of the U.S. Army and Navy.

On April 20 the announcement was made in Washington that the Navy and the U.S. Public Health Service had requested the Procurement and Assignment Service of the War Manpower Commission to select for them immediately 600 women physicians and surgeons for assignment as officers in their medical services, and at the same time a spokesman for the Army Medical Corps was quoted in the press as having said that "we can use all the women doctors they will let us have."

Once commissioned in the Medical Corps of the Army or Navy, women physicians will be entitled to the same ranks and privileges as men members of the corps. They have been eligible for assignments in the U.S. Public Health Service for several years and have been attached to the U.S. Army as contract surgeons since the time of the Spanish-American War.

A small group of women doctors from the United States went to England in 1941 as members of the emergency medical service. One of these was a New York physician—Dr. Barbara Stimson—who became a major in the Royal Army Medical Corps. Dr. Eleanor Peck, Poughkeepsie, is still in England.

County News

Albany County

A symposium on "Civilian Medical Care" was presented at the meeting of the county society on April 28. Dr. E. S. Godfrey, Commissioner of Health, State of New York, spoke on "Activities of the State Health Department in Civilian Medical

Care." Dr. Robert Hannon, Secretary of the Board of Medical Examiners of the State Department of Education, had as his subject "Consideration of the Licensure of Physicians During

Continued on page 978

... the practice of medicine demands the proper control of diarrhea while the treatment of the etiology is undertaken or its determination is being made.

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Philadelphia, Pa.

PROMPT CONTROL OF SYMPTOMS IN DIARRHEA STATES

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Kaolin in Alumina Gel

Makes patients comfortable

Soothes and protects irritated mucosa

Consolidates stools safely and quickly

Checks dangerous fluid loss

Absorbs bacteria and toxins

At the Onset . . .



Administer two tablespoonfuls of Kaomagma Plain, in a little water—

And . . .



follow this with one tablespoonful of Kaomagma Plain, after every bowel movement—

Then . . .



Kaomagma and Kaomagma with Mineral Oil are supplied in 12 oz. bottles

when stools become consolidated, one tablespoonful of Kaomagma with Mineral Oil may be indicated three times daily.

*Reg. U. S. Pat. Off.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA, PA.

[Continued from page 976]

the Present Emergency." Other programs for civilian medical care were covered in a talk by Dr. John J. Bourke, of the U.S. Public Health Service, who is also Acting Regional Medical Officer of the Second Civilian Defense Region. General discussion followed the main addresses.

Bronx County

More than 100 leading New York and Bronx physicians recently gathered at the Hotel Commodore to pledge full support of the profession to the campaign of the United Jewish Appeal for Refugees, Overseas Needs, and Palestine.

Among those who attended were Dr. Emanuel Libman, honorary chairman of the United Jewish Appeal, Physicians Division; Dr. Leo Mayer, chairman of the Joint Disease unit of the Division; Dr. Abraham Rongy, honorary chairman; Dr. Iago Galdston, executive secretary of the Bureau of Public Relations of the Academy of Medicine; Commander Julius F. Neuburger, commanding officer of the Brooklyn Naval Hospital; Dr. Burrill B. Crohn, Division chairman; Dr. Herman Schwarz, honorary chairman; and Dr. Harold B. Davidson, vice-chairman.

Franklin County

Dr. Francis B. Trudeau was the principal speaker at the annual meeting of the Franklin County Tuberculosis and Public Health Association, which was held in the Franklin Hotel in Malone on April 28.*

Herkimer County

The county society met at the Mohawk Valley Country Club on April 20, and viewed a motion picture and then a demonstration of a new surgical stitching instrument manufactured by the Singer Sewing Machine Company.*

Kings County

On April 20, Phi Delta Epsilon, Zeta Chapter, at the Long Island College of Medicine in Brooklyn, presented a symposium, with Dr. Samuel Z. Levine, professor of pediatrics at Cornell Medical College, speaking on "The Handicaps of the Premature Infant."

Discussion was given by Dr. Charles A. Weymuller, professor of pediatrics, and Dr. Murray B. Gordon, professor of clinical pediatrics, Long Island College of Medicine.

Livingston County

A meeting of the county society was held at the LaDelfa Hotel in Mt. Morris on April 8. Following dinner at 6:30 p.m. there was a business meeting, and talks were given by Drs. George Doolittle, Vincent Bonafede, and Eugene Davidoff, members of the medical staff at Craig Colony.*

Monroe County

An exhibit of interest to women, "Health and War," was held in Bausch Hall of the Rochester Museum of Arts and Sciences during the month of April.

In conjunction with the exhibit, a program was presented by the Museum Association at 8:00 p.m. on April 6. Dr. Charles B. F. Gibbs, chairman of the committee on nutrition of the Monroe County Medical Society, opened the program with a discussion of "A Victory Diet." Following his talk, a sound movie, "The Doctor's Daughter," was

shown through the cooperation of Miss Elizabeth Henry, president of the Rochester Dietetic Association. The film is concerned with present-day food fads, picturing a doctor's problem in his own daughter's poor food habits.

Material from the British Information Services was included in the exhibit, giving a picture not only of arrangements for care of Britain's civilian war casualties, but also of the balanced, adequate diet that rationing makes possible.*

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Speaking on April 19 at the formal opening of the 1,000,000-volt x-ray laboratory of the University of Rochester, which equipment he designed, Dr. E. E. Charlton, of the Research Laboratories of the General Electric Company, said that "we see no fixed barrier to the extension of our present design to considerably higher voltages."

He disclosed that experiments are now under way on an electronic accelerator through which x-rays of 1,000,000 to 100,000,000 volts may be generated. He asserted that it is "well within the range of possibility to produce man-made beams of cosmic ray."

"The future possibilities of multimillion volt x-rays are vast and unknown," Dr. Charlton commented. "But we may be certain that when we have machines that can produce them in controllable quantity and quality, the new knowledge will lead to new and useful applications in the service of mankind."*

Nassau County

The Nassau County Tuberculosis and Public Health Association opened its sixteenth annual early diagnosis campaign on April 21, and urged every resident of the county to visit his doctor for a physical check-up.*

New York County

A campaign to raise the 1943 maintenance fund for the Association for the Aid of Crippled Children began on April 19.

The association operates the only orthopaedic home-nursing service for crippled children in Manhattan, Queens, and the Bronx, and \$64,000 is needed through contributions to carry on this service, which includes health supervision, occupational therapy, summer vacations, braces, and transportation to and from clinics.

The age limit for cases served by the association has been 16 years. This is being raised to 21 years in Manhattan as a result of the recommendation made in 1940 by the Commission for the Study of Crippled Children, appointed by Mayor F. H. LaGuardia.*

. . .

Dr. George T. Pack will give an address before the 76th Annual Meeting of the West Virginia State Medical Association, which is to be held at Charleston, West Virginia, on May 18. The subject of his address will be "A Brief Excursion into the Extension of Radical Surgery in the Treatment of Cancer."

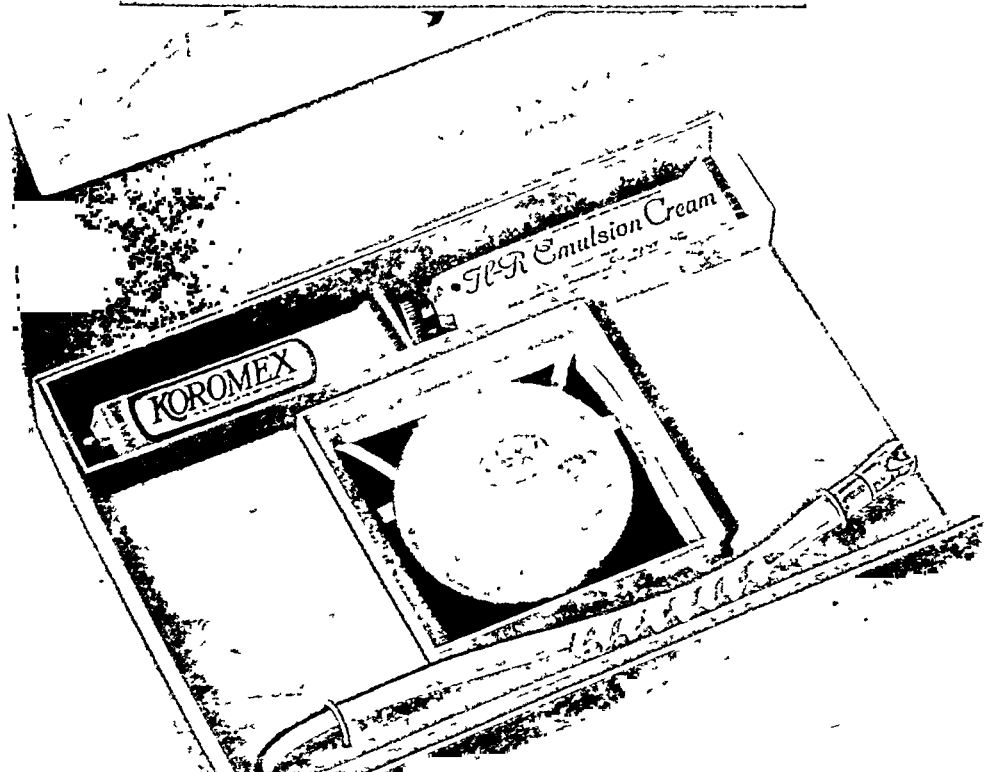
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[Continued on page 980]

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"THE KOROMEX SET COMPLETE"

Koromex Set Complete* is an attractively packaged unit containing the important items used for approved contraceptive technique. Identified by a removable label. To order or prescribe, merely write, "Koromex Set Complete, Diaphragm Size _____"

Each Unit Contains...

KOROMEX DIAPHRAGM—The outstanding, most durable diaphragm in use today. With specially designed sanitary pouch.

KOROMEX TRIP RELEASE INTRODUCER—Specially designed swivel tip facilitates usage. Gauged to take all size diaphragms

KOROMEX JELLY and H-R EMULSION CREAM—Both preparations have equally high spermicidal value, but differ in degree of lubrication. Both are included so the patient may determine which preparation better meets her requirements and personal preferences

* Price of Koromex Set Complete is only that of the Koromex Diaphragm and Koromex Trip Release Introducer

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[Continued from page 976]

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[Continued on page 980]

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[Continued from page 978]

The monthly meeting of the county society was held on April 26 at 8:15 p.m. at the New York Academy of Medicine.

The program included a symposium on tropical medicine from the Department of Public Health and Preventive Medicine, Cornell University Medical College. Subjects and speakers were "Parasitology, Epidemiology, and Treatment of Malaria," by Morton C. Kahn, M.D., associate professor of public health and preventive medicine; "Hookworm Disease," by Wilson G. Smilie, M.D., professor of public health and preventive medicine; and "Symptomatology, Diagnosis, and Treatment of Amebiasis," by Ralph W. Nauss, M.D., instructor in preventive medicine.

. . .

Realizing that wartime suspension of the meetings of national medical societies has deprived many research workers of an opportunity to present their work, the New York Academy of Medicine will hold a meeting on Thursday, May 27, for the purpose of enabling these men to present the results of their clinical research in all branches of medicine.

Preparation of this program has been entrusted to the Committee on Medical Education of the Academy, which extends a cordial invitation to research workers in the Metropolitan Area to submit to its secretary, Dr. Mahlon Ashford, 2 East 103 Street, New York City, a 200-word abstract of original clinical investigation which they may desire to present.

Each presentation will be limited to twelve minutes and will be followed by a brief period of free discussion. The publication of presentations is not a necessary condition, but the *Bulletin* of the Academy is prepared to publish abstracts if the author desires it.

. . .

Dr. Edward C. Reifenstein, professor of medicine, Syracuse University, was the main speaker at the April meeting of the Utica Academy of Medicine on April 15. His subject was "Cardiology." Discussion was opened by Dr. James W. W. Dimon.

A lecture on "Observations on Spinal Anesthesia" was given by Dr. D. D. Reals, of Utica, with discussion opened by Dr. R. G. Kibbey.

The meeting, which was preceded by dinner at 7:00 p.m., was held in the Hotel Utica.

Oneida County

Medical officers of the Rome Air Depot presented the scientific program at the quarterly meeting of the county society at the depot on April 13.

Led by Dr. Bradford F. Golly, of Rome, society president, the physicians were conducted on a tour of the depot hospital by Lt. Col. Irwin Alper, post surgeon, who gave a talk on "Medical Service to the Civilians."

The program also included the following scientific papers:

"Newer Medical Facts on the Effects of High-Altitude Flying," Capt. Samuel E. Bechtold, chief of the physical examinations department; "Chest Injuries and Treatment in Total War," Capt. Robert J. O'Doherty, chief of the surgical service; "Treatment of Psychoneuroses in Wartime," Maj. David B. Davis, chief of the department of psychiatry; and "Field First Aid and Sanitation," Capt. Ellsworth M. Tracy, chief of the medical service and medical enlisted assistants.*

Onondaga County

The second graduation of the College of Medicine of Syracuse University in the current war was held Monday, March 22, in the auditorium of the College.

The 41 graduates, 16 of them from Syracuse, heard Rear Admiral Ross T. McIntire, Surgeon General of the Navy, and also personal physician to President Roosevelt, deliver the commencement address.

Ontario County

The county society held its second quarterly meeting at the Clifton Springs Sanitarium, Tuesday, April 13. The business meeting was followed by dinner at 6:00 p.m. and the scientific session at 7:30 p.m. "Clinic on Fractures of the Hip" was given by the surgical staff of the Sanitarium and Clinic.*

Queens County

Negro physicians, pharmacists, and dentists were honored by the Queens Tuberculosis and Health Association at a dinner in the Amber Lantern, Flushing, on April 22.

The occasion was the fourth annual dinner for the Queens Clinical Society, Negro medical association, by the tuberculosis association in recognition of the fact that medical men are the "first line of defense in the fight against tuberculosis."

Guest speakers were Dr. Winifred C. Cullis, of London, and Special Sessions Judge Myles A. Paige, of Brooklyn. Godias J. Drolet, of Flushing, first vice-president of the Queensboro Tuberculosis Association, presided.*

. . .

A stated meeting of the county society was held Tuesday, April 27, at 8:30 p.m. A clinicopathologic conference on "Surgical Diagnosis of Tumors" was given by Drs. Leonard Goldman and Edward Santora.

Dr. Elise S. L'Esperance, laboratory director New York Infirmary for Women and Children, an serologist at Memorial Hospital, spoke on "Cancer Prevention Clinics." Her paper was discussed by Dr. Cornelius P. Rhoads, director, Memorial Hospital.

Dinner was served at the Forest Hills Inn at 7:00 p.m., with the guest speakers present.

Rensselaer County

The regular meeting of the Rensselaer County Medical Society was held on April 13 at the Health Center in Troy. A paper was presented by Drs. Stewart H. Jones and G. H. Klinck, director of laboratories at the Samaritan Hospital.

Dr. Jones addressed the meeting on the subject "Torula Meningitis" and Dr. Klinck presented lantern slide demonstrations. Dr. Stephen H. Curtis opened the discussion.*

. . .

Rheumatic fever was characterized as "Public Enemy No. 1" by Dr. Frank Mastrianni, city health officer, who spoke on "Children's Diseases" at a Parent-Teacher Association meeting in Troy on April 14.*

. . .

The progress of the medical care program of the Troy Welfare Department, developed along departmental lines a year ago by the department with

[Continued on page 982]



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You don't expect to restore normalcy to feet that even nature has failed to aid, but you do expect to relieve your foot-patient from conditions that create agony and handicap.

There is no "standardized" form or last in shoes to cover every case, so a wide range of shoes is essential for correction. In **PEDIFORME FOOTWEAR** you will find both general features and individual construction points variable enough to take care of the most difficult case. These orthopedic shoes are attractive, too.

MANHATTAN, 36 West 36th St. **NEW ROCHELLE**, 545 North Ave.
BROOKLYN, 322 Livingston St. **EAST ORANGE**, 29 Washington Pl.
843 Flatbush Ave.
HEMPSTED, L. I., 241 Fulton Ave. **HACKENSACK**, 290 Main St.

Pediforme
Physicians
DATA
cover 25 to 50
variable details
of
Pediforme Footwear
Construction

[Continued from page 980]

the cooperation of the county society, was reviewed on April 7 at a meeting of welfare officials with the society's advisory committee on public medical care.

The physicians' committee included Dr. Crawford R. Green, chairman, Dr. Richard P. Doody, Dr. Stephen H. Curtis, Dr. John T. H. Hogan, and Dr. John J. Noonan.

The welfare department was represented by Commissioner John J. Givney and Dr. John J. Rainey, medical consultant to the department.*

Schenectady County

The regular monthly meeting of the county society was held in the Ellis Hospital in Schenectady on April 6. Six speakers took part in a Symposium on Cancer. Dr. E. MacD. Stanton gave a "Further Report on Cases of Carcinoma of the Breast." Dr. J. B. Gilbert spoke on "Early Diagnosis of Genito-Urinary Carcinoma." "The Frei Test in Cancer of the Rectum" was presented by Dr. F. L. Sullivan. The other three addresses were: "A Rare Malignant Tumor of the Femur," by Dr. Louis Cohen; "Radiation Treatment of Common Forms of Cancer," by Dr. K. L. Mitton; and "Progress in Cancer Research," by Dr. Ellis Kellert.

Steuben County

The spring meeting of the county society was held at the Baron Steuben Hotel in Corning on April 8.

Following a luncheon at 12:30 P.M., a business session was held, and the delegates to the State Society were instructed to vote in favor of the Basic Science law.

With respect to the nonprofit medical insurance plan, it was recommended that the president appoint a committee, one of whom shall be the secretary, to investigate the plan and report at the next meeting.

Dr. Joe W. Howland, instructor in medicine, University of Rochester, School of Medicine and Dentistry, gave an interesting and instructive lecture on "Plasma Therapy and Whole Blood Transfusion." This program was arranged by the Council on Public Health and Education of the Medical Society of the State of New York and the New York State Department of Health, in cooperation with the Office of Civilian Defense and the Health Preparedness Commission of the State War Council.

Thirty-five members were present.

R. J. SHAFER, M.D., Secretary

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Arthur E. Broga	85	N.Y. Ecl.	April 17	Oneida
Richard D. Bullard	39	Cornell	April 22	Saratoga Springs
James H. Donnelly	72	Boston	April 8	Troy
Thomas F. Dwyer	80	Buffalo	April 11	Buffalo
Cornelius G. Dyke	42	Iowa	April 23	Manhattan
Hyman Glanz	62	P. & S., N.Y.	April 15	Manhattan
Harold L. Hall	55	Cornell	April 6	Brooklyn
Thomas Jameson	76	McGill	April 23	Rochester
Harry O. Maldiner	55	Buffalo	April 10	North Tonawanda
Myron E. Osterhout	49	N.Y. Hom.	April 16	Cornwall
Irving R. Rathgeb, Jr.	29	L.I.C. Med.	February 23	Brooklyn
Adolph Reich	77	N.Y. Univ.	April 27	Manhattan
Andrew Sloan	63	P. & S., N.Y.	April 21	Utica
Frank W. Sweetland	87	Buffalo	April 13	Angola
Charles L. Weitz	48	N.Y. Hom.	April 13	Mount Vernon



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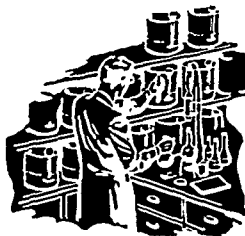
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(Continued from page 980)

the cooperation of the county society, was reviewed on April 7 at a meeting of welfare officials with the society's advisory committee on public medical care.

The physicians' committee included Dr. Crawford R. Green, chairman, Dr. Richard P. Doody, Dr. Stephen H. Curtis, Dr. John T. H. Hogan, and Dr. John J. Noonan.

The welfare department was represented by Commissioner John J. Givney and Dr. John J. Rainey, medical consultant to the department.*

Schenectady County

The regular monthly meeting of the county society was held in the Ellis Hospital in Schenectady on April 6. Six speakers took part in a Symposium on Cancer. Dr. E. MacD. Stanton gave a "Further Report on Cases of Carcinoma of the Breast." Dr. J. B. Gilbert spoke on "Early Diagnosis of Genito-Urinary Carcinoma." "The Frei Test in Cancer of the Rectum" was presented by Dr. F. L. Sullivan. The other three addresses were: "A Rare Malignant Tumor of the Femur," by Dr. Louis Cohen; "Radiation Treatment of Common Forms of Cancer," by Dr. K. L. Mitton; and "Progress in Cancer Research," by Dr. Ellis Kellert.

Steuben County

The spring meeting of the county society was held at the Baron Steuben Hotel in Corning on April 8.

Following a luncheon at 12:30 p.m., a business session was held, and the delegates to the State Society were instructed to vote in favor of the Basic Science law.

With respect to the nonprofit medical insurance plan, it was recommended that the president appoint a committee, one of whom shall be the secretary, to investigate the plan and report at the next meeting.

Dr. Joe W. Howland, instructor in medicine, University of Rochester, School of Medicine and Dentistry, gave an interesting and instructive lecture on "Plasma Therapy and Whole Blood Transfusion." This program was arranged by the Council on Public Health and Education of the Medical Society of the State of New York and the New York State Department of Health, in cooperation with the Office of Civilian Defense and the Health Preparedness Commission of the State War Council.

Thirty-five members were present.

R. J. SHAFER, M.D., *Secretary*

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Arthur E. Broga	85	N.Y. Ecl.	April 17	Oneida
Richard D. Bullard	39	Cornell	April 22	Saratoga Springs
James H. Donnelly	72	Boston	April 8	Troy
Thomas F. Dwyer	80	Buffalo	April 11	Buffalo
Cornelius G. Dyke	42	Iowa	April 23	Manhattan
Hyman Glanz	62	P. & S., N.Y.	April 15	Manhattan
Harold L. Hall	55	Cornell	April 6	Brooklyn
Thomas Jameson	76	McGill	April 23	Rochester
Harry O. Maldiner	55	Buffalo	April 10	North Tonawanda
Myron E. Osterhout	49	N.Y. Hom.	April 16	Cornwall
Irving R. Rathgeb, Jr.	29	L.I.C. Med.	February 23	Brooklyn
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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

REVIEWED

Ovarian Tumors. By Samuel H. Geist, M.D. Octavo of 527 pages, illustrated. New York, Paul B. Hoeber, Inc., 1942. Cloth, \$10.50.

Dr. Geist's book on ovarian tumors brings up to date the entire subject of ovarian neoplasms. In it he has incorporated all the recent information on the embryology, anatomy, and physiology of the ovary. The newer views dealing with the origin and classification of ovarian tumors are thoroughly reviewed. The material is well arranged and in each chapter the author discusses the etiology, anatomy, clinical aspects, prognosis, and therapy of the various types of tumors.

The text is profusely illustrated, containing 266 black-and-white drawings and microphotographs. The latter are excellent and should be extremely valuable to the pathologist.

Another outstanding feature of this book is the author's discussion and treatment of ovarian tumors complicating other conditions, such as pregnancy.

For those interested in further study, each chapter ends with an exhaustive bibliography.

The information contained within this book should be especially valuable to the gynecologist, abdominal surgeon, and pathologist.

MORRIS GLASS

Infant and Child in the Culture of Today. By Arnold Gesell, M.D., and Frances L. Ilg, M.D. Quarto of 399 pages, illustrated. New York, Harper & Brothers, 1943. Cloth, \$4.00.

This book is divided into three parts. The first deals with the growing child in a modern culture. The main body of the book is included in the second part, which is devoted to a factual statement of the mental growth and characteristics of the first five years of life. Twelve behavior profiles, each accompanied by a behavior day, are included in the division of the first five years of life. The behavior profile gives a picture of the type of child with which the culture has to deal at a particular stage of his maturity. The behavior day shows how the growth and maturity of the child is fostered at different ages.

The third part is devoted in a broad way to the guidance of growth. It discusses general topics of developmental philosophy, habits such as sleep, feeding, and parental guidance. The appendix contains a behavior day chart for self-regulation, scheduling a list of toys, play materials and equipment, books for preschool children, musical records for infants and young children, and selected readings.

This book is of value to parents and teachers. For physicians, much of the ground has been covered in a previous work by Gesell and Armatruda called *Developmental Diagnosis*. However, for those particularly interested in the field of child development, the present volume should serve in a complementary way.

STANLEY S. LAMM

Gynecologic Surgery. By Morris A. Goldberger, M.D. (Oxford Medical Outline Series.) Octavo of 164 pages. New York, Oxford University Press, 1942. Cloth, \$2.00.

This book gives in outline form a résumé of operative gynecology. As is stated in the preface, it is not intended to replace any of the standard and illustrated works on gynecology, but to serve as a general working guide for the subject.

The facts are more briefly and simply presented than they usually are in outline books of this kind. Blank pages are inserted for notes and sketches, so that the reader may record in the volume a brief account of his own experiences. Of its kind and within its limitations, the book should be useful for medical students and for the younger specialists in this field.

FRANCIS B. DOYLE

Synopsis of Traumatic Injuries of the Face and Jaws. By Douglas B. Parker, M.D. Duodecim of 334 pages, illustrated. St. Louis, C. V. Mosby Co., 1942. Cloth, \$4.50.

Seldom has a book come to this reviewer that fill an immediate need for both the dental and medical professions as does this one by Douglas Parker. Ever-increasing injuries to the face and jaws occurring in civil life as the result of automotive accidents together with those that are the result of military action make this little volume a must in the library of all practicing physicians and dentists.

Starting with a brief review of applied anatomy of the face and jaws, the author proceeds to the initial treatment at the scene of an accident. A chapter on the treatment of shock is followed by one on the control of infection, in which the use of the sulfu drugs is covered. The chapter on the treatment of wounds has many good illustrations, both photographs and roentgenograms; suturing is gone into in detail. Grant's technic of tying knots without the use of the fingers is very well diagrammed. Then come chapters on burns of the face, bone injuries, and the stabilization of fractures, the latter containing excellent illustrations of the mechanical devices used in the stabilization of the mandible and maxilla.

Complication of fractures is discussed in detail, and in the chapter on surgical reconstruction, the reader will find excellent material on bone and tissue grafts. The dentist will be particularly interested in the review of surgical prosthetic restorations.

This book follows a logical sequence. It is decidedly up to date. The illustrations are new and well done. The author has drawn on his vast experience to bring out in concise form the information that the general practitioners of medicine and dentistry will desire to have on hand when they are called to treat accidents of all types, military, industrial, and automotive. The book is well printed. References are liberal, and it is well indexed.

LAWRENCE J. DUNN

[Continued on page 986]

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(Continued from page 984)

Manual of Dermatology. Issued under the Auspices of the Committee on Medicine of the Division of Medical Sciences of the National Research Council. By Donald M. Pillsbury, M.D., Marion B. Sulzberger, M.D., and Clarence S. Livingood, M.D. Octavo of 421 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$2.00.

This is an excellent book; all who are interested in the management of skin diseases can profit by reference to it. Its use is not confined to conditions peculiar to service with the armed forces.

The book is distinguished by its conciseness, clarity, and orderliness, and by the presentation of a mass of data on the diagnosis and treatment of all of the common, and many less common, dermatoses. Detailed treatment of the diagnosis and management of venereal diseases is not within the scope of the manual. After a short chapter of practical directions for the use of the book there follow three sections devoted to diagnosis. These are based, respectively, upon primary and secondary lesions, the distribution and the sites commonly involved in skin diseases. The last-named section includes a series of 80 informative black-and-white photographs occupying 78 pages.

In the fifth chapter are discussed pharmacologic principles underlying the use of topical agents and x-ray in dermatology, as well as the practical details of the use of these modalities. Each of the succeeding thirteen chapters is devoted to a group of allied dermatoses—for example, "Eczema-Dermatitis" (Chapter VI), "Fungal Infections" (Chapter VII), "Drug Eruptions" (Chapter XIV), and so on. A formulary, presented as an appendix, lists 82 different topical remedies, many in the form of prescriptions, together with indications and contraindications for their use. The index is unusually complete and occupies almost one-tenth of the space of the text. The errors are few and chiefly typographical. Factual errors are to be found in a caption for an illustration of granuloma inguinal (page 115) and in the directions for evaluating the Frei reaction (page 35). These in no way detract from the general excellence of the book.

ARTHUR W. GRACE

Medical Clinics of North America. Volume 26, No. 6. November, 1942. Octavo. Illustrated. Philadelphia, W. B. Saunders Company, 1942. Published bimonthly (six numbers a year). Cloth, \$16 net; paper, \$12 net.

This number of the *Clinics* is devoted to the important field of endocrinology. The first three articles cover most of the important aspects of the pituitary gland. Although this is an important structure, little advance has been made in treating it. The authors cover the medical and surgical treatment adequately.

Much more solid matter is found in the three articles covering thyroid disease, particularly in the one by Edward Rose. There is a useful chapter on x-ray treatment of hyperthyroidism.

There is a good article on the pancreas and an equally interesting one on the adrenal gland. In addition to this there are four helpful reviews of male and female gonad disturbances.

The final article covers a topic that is little known to most clinicians and is therefore worth a careful reading. It gives a concise abstract of the normal and abnormal figures for quantitative assay of the various hormones. The technic is simply described. Although most laboratories are not prepared to perform many of those tedious tests, it is good to know, roughly, how they are done and what they mean.

This issue of the *Clinics* is as useful as are the preceding numbers for 1942.

A. M. BABEY

Urology. By William H. Mencher, M.D. (Oxford Medical Outline Series.) Octavo of 204 pages. New York, Oxford University Press, 1942. Cloth, \$2.00.

This small volume is a comprehensive compendium. A more suitable name for it would be a "Syllabus," as it is a serial word outline of the various lesions of the urinary tract, including their diagnosis and treatment. There are no illustrations.

The book should be useful particularly to medical students and class teachers in urology. It is a factual listing of data, lacking in clinical features.

AUGUSTUS HARRIS

Fractures. By Paul B. Magnuson, M.D. Fourth edition. Octavo of 511 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1942. Cloth, \$5.50.

The author has packed within the covers of this comparatively small volume a complete coverage of the subject in all its details.

He briefly, yet clearly, analyzes the various methods of treatment with indications and recommendations for a choice method in a given type of fracture. He suggests to the reader, from his vast store of experience, some personal ideas which are in a great measure simple, useful, and easily applied by a surgeon of less experience.

The chapter on general emergency treatments deserves special commendation because of its timeliness and thoroughness, dealing as it does with conditions now confronted by both civilian and army surgeons. In this chapter the author outlines up-to-date methods found to be most practical and beneficial in shock, emergency war wounds, compound fractures, etc.

The explanations of the muscle pull, at or near the fractured bones, indicate to the reader how to counter or make use of this force in the treatment of such fractures.

Fractures of the pelvic bones are well described but the writer fails to indicate what is now considered a very efficient method described by Dr. Jahss, which makes it possible to overcome any overriding by distraction or to correct separation of the bones by compression.

As a whole, this book fills a gap between the small textbook for the student and general practitioner and the voluminous systems dealing with fractures. Yet any surgeon, no matter what his experience or qualifications are, will benefit by perusing its pages. It is an ideal refresher of the whole subject.

NATHAN H. RACHLIN

Fundamentals of Psychiatry. By Edward A. Strecker, M.D. Duodecimo of 201 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1942. Cloth, \$3.00.

This is a handy little volume—just what its name implies. It contains a great deal of information crammed into a small space, the history of psychiatry and its progress being briefly traced. In addition to classification and description, interpretation of reactions is stressed. Treatment is brought up to date. There is also a chapter on the psychiatry of the war. This book is recommended for physicians, who are more and more realizing the importance of the psychiatric component in all afflicted persons, both in military and civil life. Supplemented by collateral reading it could be a serviceable guide to the medical student.

A. E. SOPER



A belief among some of the profession that Saratoga Spa serves only the rich, is *not* true. This New York State health center makes provision for the sick, including those who must keep costs within limited means.

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"AGAINST 'WEAK' ENDS"

Ralph A. Bard, Assistant Secretary of the Navy, writing for the United Press, recommended that private industry should make an effort to put in effect short vacations every 90 days or four months as a regard to those with a good record of steady working performance.

The railroad managements are also calling attention to the developments in England, where the bank holidays are being lengthened in an effort to check the spread of occupational diseases.

Bus and air line officials are also anxious to let the public know that there is space available on many of their carriers. Week-end travel on these lines continues heavy but during the week the story is different. Employers undoubtedly will be encouraged to begin vacations in midweek on an even larger scale than in 1942.

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Then there was the undertaker who demanded extra gasoline on the premise that he "had to make periodic calls upon prospective customers."

A bond salesman, who had a uniformed chauffeur to drive him in a limousine to the homes and offices of his clients, had been allowed a B card, for which he had been eligible at the time under the occupational driving regulations, but now demanded a C book. His argument was that if he did not get the extra gasoline, he wouldn't be able to make enough money to afford a chauffeur; therefore the ration board would be responsible for the chauffeur losing his job.

And then there was the wealthy manufacturer who thumped the desk with his fist and swore that he had been driven between his swank Westchester home and his Manhattan office every week day for fifteen years and wasn't going to put up with this New Deal nonsense now.

But the common plea runs: "Look, mister, I've got a boy in the Army. I've got a wife and smaller kids at home. I put ten per cent every week in war bonds. All I want is enough gas to make a living."

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TEETH DECAY

State Sen. Thomas C. Desmond, chairman of the New York State Joint Legislative Committee on Nutrition, recently penned the following item for *The Saturday Evening Post*.

"In Portland Oregon, and San Diego, California, representative groups of children underwent a special kind of medical test. The two sets of youngsters might have looked much the same to a casual observer, but one striking difference became apparent to the examiners. For 95 per cent of the Portland children showed some of the symptoms of rickets, against 73 per cent of the San Diego group. And more than twice as many of the San Diego children had no decayed teeth.

"Why? San Diego, located farther south, gets about 3,000 hours of sunlight a year, compared with 2,200 for Portland. And the sun's ultraviolet rays convert certain substances in the skin into vitamin D, essential for turning the calcium and phosphorus we get in our food into strong teeth and bones.

"This is no isolated example. Army rejection rates for defective teeth—which accounted for 20 per cent of the first 1,000,000 rejections in this war—are highest in the New England States and lowest in the South; the Army has had to institute the expensive practice of rehabilitating draftees' teeth whenever possible. A nation-wide survey of more than 500,000 children showed that tooth decay decreased in areas receiving more sunshine.

"The same study also revealed that the proportion of poor teeth was greater in the larger cities, which have more impurities in the air—and higher buildings—to obscure the sunlight. Nature evidently intended us to get our vitamin D from the sun, for none of our ordinary foods—not even milk—contains enough to meet minimum needs . . . The only answer is to add vitamin D to the diet. Infants generally get it in the form of fish-liver oils, although this is usually discontinued by the time the child enters school. The dairy industry is increasingly going in for the addition of vitamin D to milk . . . the most suitable as a carrier of added vitamin D.

"This was recently tested among a group of school children near New York City. All got the same basic diet—with vitamin D being added to the milk of one set. Tooth decay increased twice as fast among those who drank ordinary milk as among those who drank the vitamin D kind."

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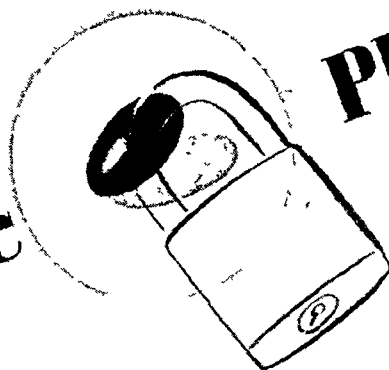
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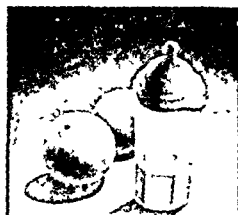
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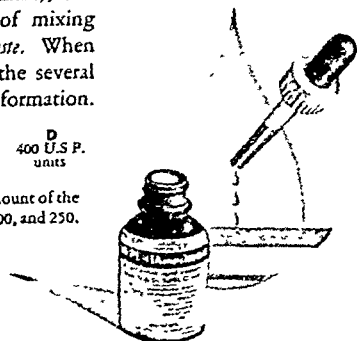
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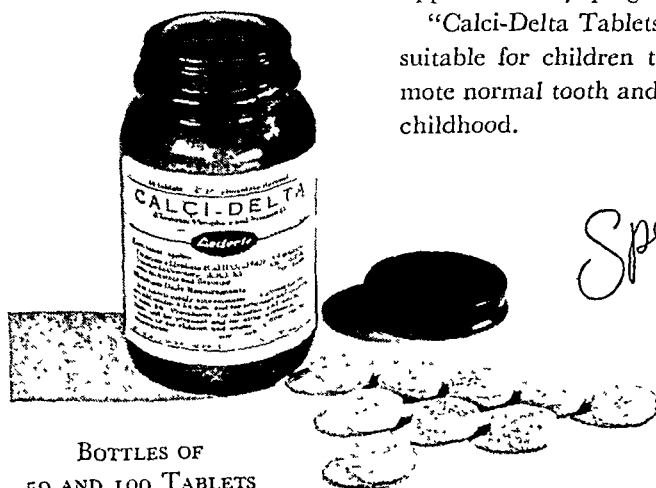
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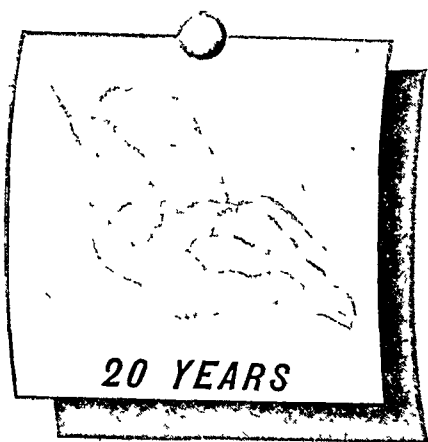
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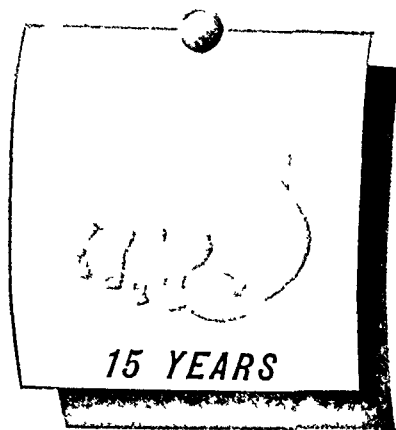
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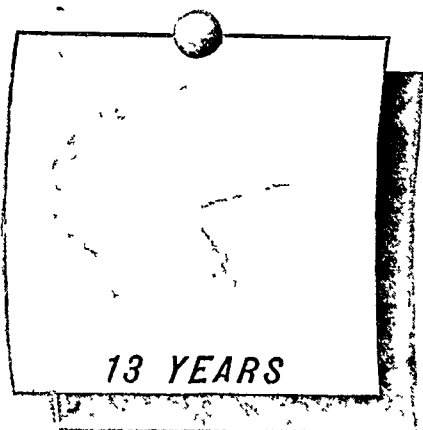


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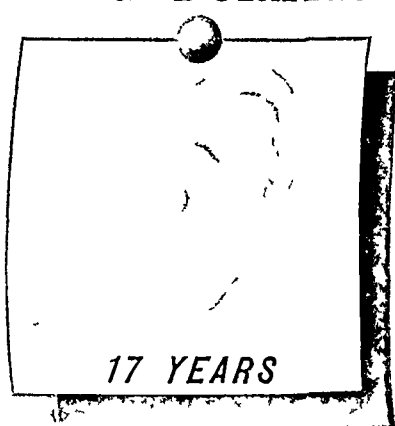


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The Orthopedic and Medical Management of
Arthritis, *Journal-Lancet*, 63:48-50, (February) 1943.

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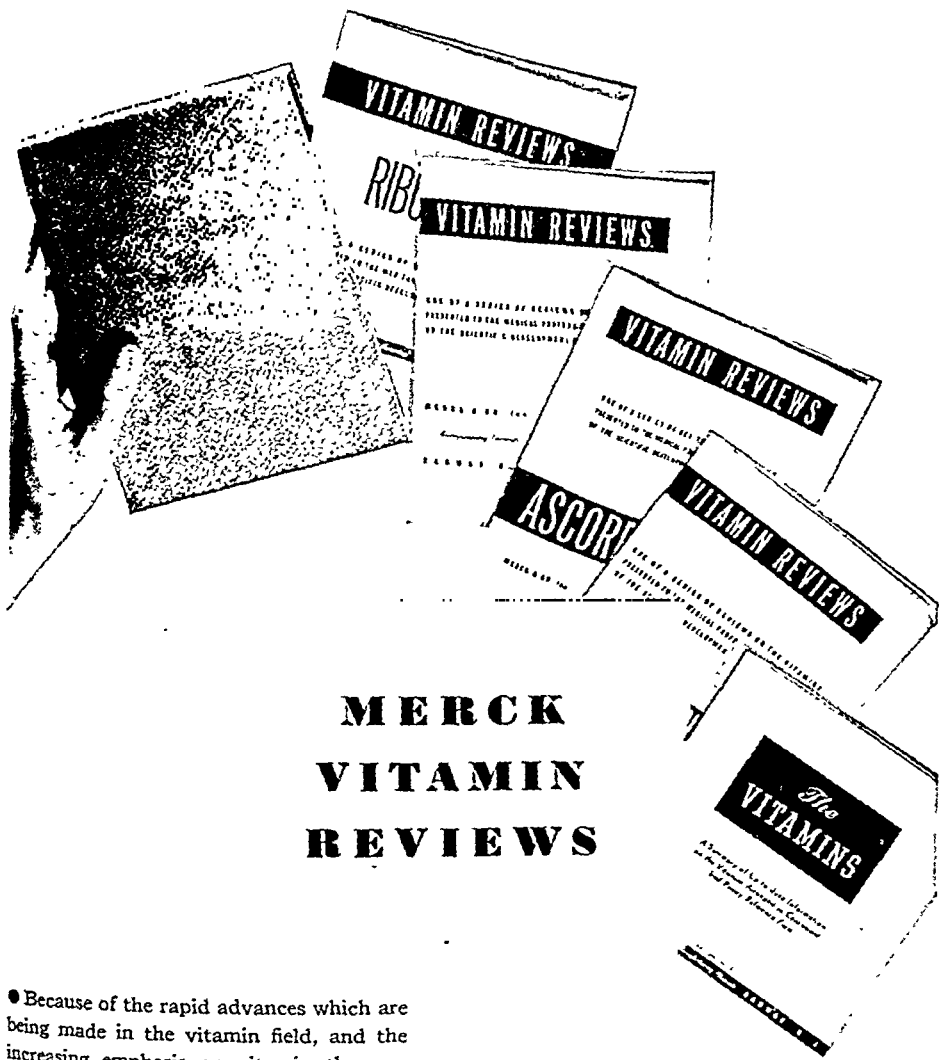
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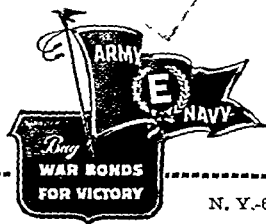


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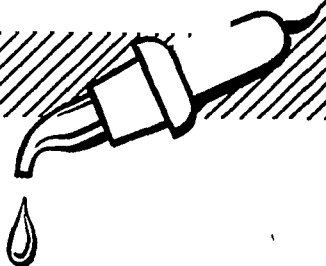
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¹JOHNSON, R. E., DARLING, R. C., FORBES, W. H., BROUHA, L., EGANA, E., and GRAYBIEL, A., The Effects of a Diet Deficient in Part of the Vitamin B Complex Upon Men Doing Manual Labor, J. of Nutrition, 24 585-595 (1942).

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*Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154. Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60.
Proc. Soc. Exp. Biol. and Med., 1934, 32, 241. N. Y. State Journ. Med., Vol. 35, 6-1-35, No. 1.

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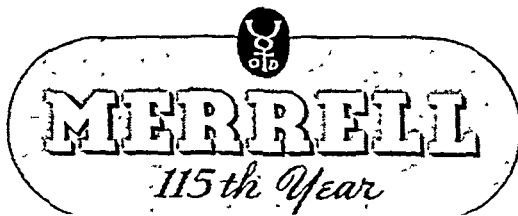
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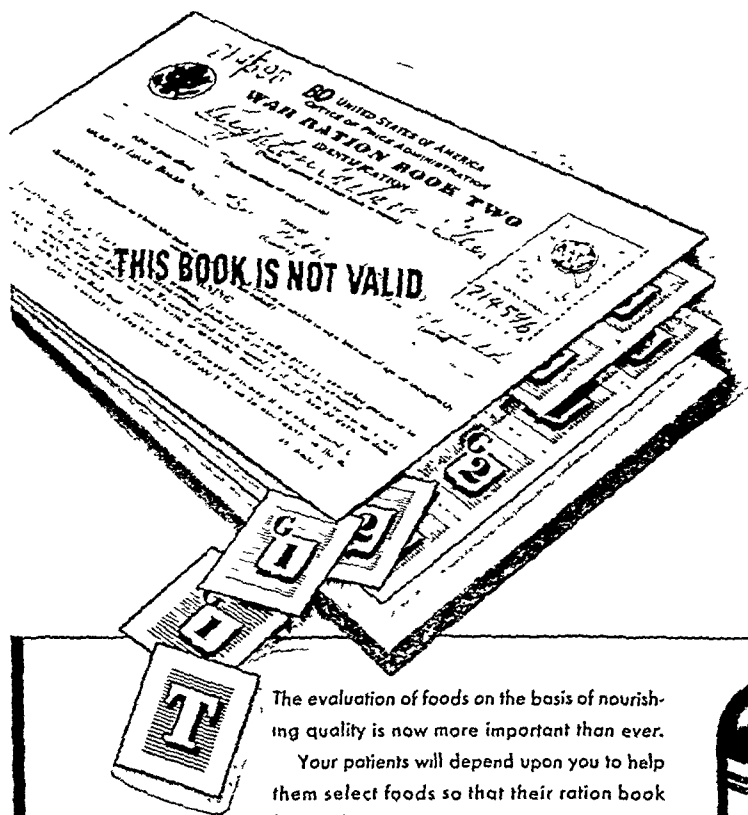
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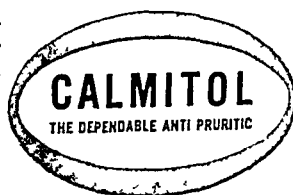


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Brewer's Yeast Emulsion

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WITHOUT CONSTIPATING EFFECT



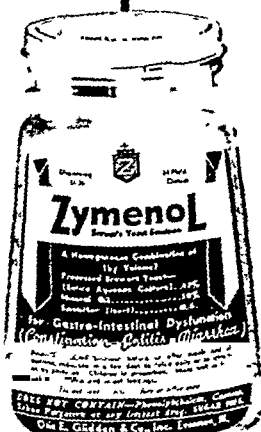
Zymenol, containing pure, whole, aqueous BREWERS YEAST including the natural enzymes, controls *Common Diarrhea* on the following dosage:

One teaspoonful every hour, reduce after few hours to individual need.

Zymenol promptly overcomes the irritating watery stool of Diarrhea and restores normal evacuation with a bulky, less toxic stool **WITHOUT CONSTIPATING EFFECT** because of its two-fold natural action;

1. **THE ENZYMES** restore near fermentative fecal bulk and a less toxic bowel flora.
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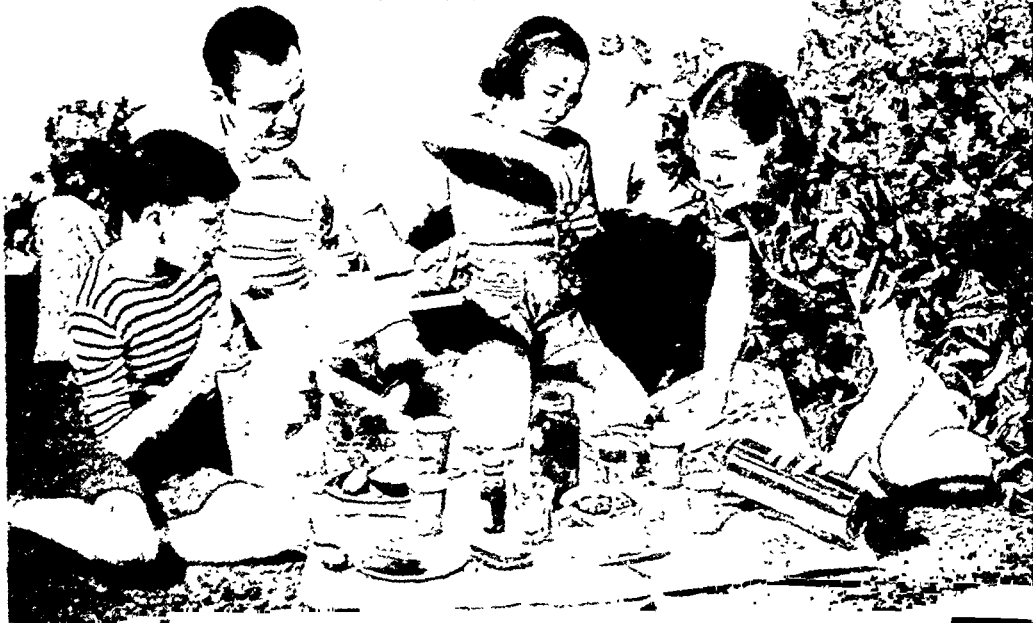
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Zymenol

Brewer's Yeast Emulsion

Controls Summer Diarrhea
WITHOUT CONSTIPATING EFFECT



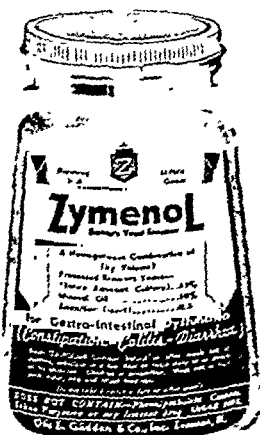
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NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 43

JUNE 1, 1943

NUMBER 11

Editorial

Caudal Anesthesia in Obstetrics

During the last century many methods for the relief of the pains of childbirth have been advocated. Inhalation anesthesia, first suggested by Sir James Simpson, was followed by the administration of drugs, orally, or by hypodermic injection, or by rectum. All methods were partially successful, but all had their peculiar dangers among which were the many babies born more or less asphyxiated.

Recently Hingson and Edwards have reported a new method for producing painless childbirth by injecting a cocaine derivative into the caudal canal at various intervals, thus producing analgesia during labor and anesthesia for delivery. Experience with this method of procedure and an analysis of 218 cases is presented on page 1023 of this issue by Drs. Francis R. Irving, C. Albertson Lippincott, and Frank C. Meyer, of Syracuse, New York, in which contribution the authors, in a preliminary report, enumerate the disadvantages and contraindications for use of this procedure.

In 218 cases, 29 instances of fetal distress, or 13.3 per cent, were noted; in 118 cases, a sustained fall in blood pressure in 22, or 18.6 per cent, was found; of the 12 cases of fetal distress in the last 118 cases, 9, or 75 per cent, "occurred in patients manifesting a sustained low blood pressure. In each of the remaining 3 cases there was clear obstetric explanation for the fetal distress.

"One stillbirth is presented for which there is no apparent obstetric reason and which was probably a result of the caudal anesthesia."

These disadvantages and contraindications should be carefully studied by those who contemplate the use of this method. Aside from the high percentage of fetal distress and sustained drop in maternal blood pressure, it should be considered that the invasion of the caudal canal is, in itself, a major surgical procedure. "Since most of the dangers, drawbacks, and untoward effects have been associated with certain technical difficulties which could not be foreseen in the early phases of the work by even experienced physicians, it is suggested that, for the present, at least, the use of the method be confined to institutional practice by persons trained and experienced in caudal anesthesia."¹

Let us reiterate. The method of giving the anesthesia is a major surgical procedure. A patient receiving continuous caudal anesthesia requires meticulous care and frequent observation of blood pressure and fetal heart rate. The technic is relatively new. A few undesirable results following its use by those not fully aware of the hazards may bring about unwarranted condemnation of what may be a helpful and valuable procedure. Its use should be restrained. It seems at present to be a proper procedure only for larger institutions possessing well-trained assistants, especially with respect to the technic of anesthesia of this kind. Considerably more investigation seems warranted before it is made generally available to the public.

¹ J.A.M.A. 122: 158 (May 15) 1943.

Meningococcus Meningitis

Reports from the Division of Communicable Diseases of the State Department of Health indicate an increase in the incidence of this disease throughout the State. A similar increase seems to be apparent throughout the country. In New York State there was no appreciable increase over the previous (1938-1942) five-year average until June of last year. Throughout the rest of 1942 the number of cases reported each month was usually about double the average number reported during the corresponding month in the previous five years. For 1942, the total for the State was 183 and for New York City 418, as against 122 and 153, respectively, the average for the previous five years in each category.

From January 1 to May 15, 319 cases have been reported throughout the State exclusive of New York City, and in New York City, from January 1 to May 13, 708 cases. Under these circumstances the decision of the Council Committee on Public Health and Education to provide speakers on meningococcus meningitis and to feature

this aspect of its postgraduate teaching program deserves the hearty cooperation of all medical groups within the State. The Committee has stressed the diagnosis and treatment of meningococcus meningitis as a part of its sulfonamide program during the current year, but in view of the markedly increased incidence of this disease a special program is now being developed concerning which special announcements and a list of speakers on this topic should be published shortly.

The importance of this program cannot be overemphasized. All medical groups are urged to cooperate with the State Society through its Council Committee on Public Health and Education, and to bring these well-qualified speakers before their membership as soon as this can be arranged. General participation in this postgraduate program, alertness on the part of the profession to recognize the disease in its inception, and immediate isolation and treatment are urgently indicated. To be forewarned is to be forearmed.

Prevention of Rheumatic Reinfection

Rheumatic fever is a much more frequent crippling scourge than poliomyelitis. The first attack may not infrequently be fatal, but its tendency to recurrence, thereby adding new injuries to the old, not only increases the mortality rate but leaves the afflicted handicapped for life from permanent cardiac changes. Since the causative agent of rheumatic fever is still undiscovered, previous attempts to avoid recrudescences have necessarily been along non-specific lines. Recognition of the important precipitating role of *Streptococcus haemolyticus* infections has focused attention on measures to prevent such infections.¹ Avoidance of contact with streptococcus-infected individuals and climatic retreat to regions of low rheumatic incidence have been, until recently, the chief effective strategies. The last resort is really a drastic one, for it means disruption of normal family life and the wrecking of environmental influences.

Discovery of sulfanilamide and its proved bacteriostatic effect upon the *Strep. haemolyticus* inevitably led to its use as a prophylactic agent

against rheumatic reinfection. The earliest studies of such prophylaxis yielded encouraging data.^{2,3} Sulfanilamide-treated subjects who had suffered previous rheumatic infections developed few recurrences as compared with control groups of comparable untreated patients. Since children undergo more severe rheumatic infections and are more susceptible to recurrences than adults, further studies in children offered a searching test of sulfanilamide prophylaxis. Publication of two well-controlled series, dealing solely with children, and producing substantially the same results as have been obtained with adult rheumatic patients, was a most welcome confirmation.^{4,5}

The dosage of sulfanilamide employed prophylactically was small as compared with the therapeutic dose in active, acute infections. The most common dose was 1 to 2 Gm. daily, according to age and size, given in two or three divided doses. The blood level so attained was usually around 2 mg. per cent. Toxic reactions occurred in 10 to 15 per cent of cases, largely in the form of fever, eruptions, and granulopenia.

Acute hemolytic anemia was conspicuous by its absence, although a slight fall of hemoglobin was frequent. One death has been reported as resulting from this method of therapy.⁶

In spite of obvious inherent dangers which demand constant supervision and periodic blood examinations, the prophylactic administration of sulfanilamide (or a related sulfa drug) to rheumatic-susceptible individuals, offers the greatest promise of any method yet devised to prevent rheumatic reinfection. Furthermore, it can be universally applied, for the economic factor is negligible, and there is no domestic and environmental cleavage. Since the ultimate prognosis of rheumatic fever is largely determined by reinfection, the prophylactic use of sulfanilamide bids fair to improve greatly the prognosis of the rheumatic patient. It must be emphasized that this therapeutic method is

not designed for use during active rheumatic infection, when it is ineffective, but only for the prevention of reinfection. Its benefits are conferred only while the drug is taken. Administration will probably be of a seasonal nature repeated over a span of years, until the time when it is believed that the rheumatic infection is unlikely to recur.

1. Wilson, M. G.: Commonwealth Fund, Division of Publications, 1940.
2. Coburn, A. F., and Moore, L. V.: *J. Clin. Investigation* 18: 147 (Jan.) 1940; *Med. Clin. North Am.* 24: 633 (May) 1940.
3. Thomas, C. B., and France, R.: *Bull. Johns Hopkins Hosp.* 64: 67 (Jan.) 1939; *J.A.M.A.* 116: 551 (Feb. 15) 1941.
4. Hansen, A. E., Platou, R. V., and Dwan, P. F.: *Am. J. Dis. Child.* 64: 963 (Dec.) 1942.
5. Kuttner, A. G., and Meyersbach, G. J.: *J. Clin. Investigation* 22: 77 (Jan.) 1943.
6. Stowell, D. D., and Button, W. H.: *J.A.M.A.* 117: 2164 (Dec. 20) 1941.

Hemoglobin Regeneration

Dissemination of knowledge regarding the importance and uses of blood and plasma in both military and civil life has had a profound public influence. From patriotic and kindred social motives thousands have gladly donated their blood. Abstraction of this huge amount of blood is chiefly performed through the medium of blood banks which, while not called into being at the behest of the public, are kept in continuous operation by numerous willing contributors.

This grand movement raises several problems. How much blood can be safely contributed? How frequently may one be a blood donor without harm to himself? What measures can or should be taken to hasten the restoration of blood in the donor? These and other pertinent questions have been definitely and mathematically answered by investigators interested in hemoglobin regeneration following phlebotomy.

It has been demonstrated that iron therapy, 12 grains of ferrous sulfate daily, greatly increased the rate of hemoglobin regeneration after a blood donation.¹ Withdrawal of 500 to 600 cc. of blood required an average time of 49.6 days for the hemoglobin to return to its original level.² Hemoglobin was regenerated at the rate of 0.04595 Gm. per 100 cc. of blood per day. With iron therapy, daily hemoglobin regeneration, under similar circumstances, rose to 0.0772 Gm. per 100 cc. of blood per day, an increase of almost 50 per cent.³ The recovery period was shortened from 49.6 days to 35.2 days. Without therapy, about 75 per cent of the donors had a return of

hemoglobin to the original level in eight weeks or less, and 25 per cent required up to fifteen weeks for a similar regeneration, but with iron therapy 93½ per cent regained their normal hemoglobin in eight weeks.

Unfortunately, iron therapy given continuously, exerted little influence upon the rate of hemoglobin regeneration and the period of hemoglobin restoration when blood was donated more than once. After the second donation there was a sharp decline of the augmented hemoglobin regeneration to the rate previously attained without iron therapy. This inefficacy of continuous iron therapy in constantly augmenting hemoglobin regeneration deprives us of the hope of thus permanently increasing the frequency or amount of blood given by the individual donor. This is not due to lack of iron absorption, for balance studies showed more iron was retained than was metabolized into hemoglobin.⁴ These facts seem to indicate that iron therapy after repeated blood donations is not simple replacement therapy.

Other interesting and related features have also been established. There is no evidence of bone marrow exhaustion after repeated donations. Blood donors subsisting on defective diets are liable to anemia as a result of this loss of blood. Such anemia is of a microcytic type, however, and responds to iron therapy.⁵ Women are not as successful blood donors as men are, for they are prone to develop anemia.

From these studies we learn that the male is the preferable donor; that his diet must be ade-

quate for hemoglobin regeneration; that the optimum amount of blood donated at one time is 500 to 600 cc.; that two or three months is the interval of choice. Iron therapy will hasten the recovery period by increasing hemoglobin regeneration after the first donation of blood. This process does not continue to operate during subsequent donations, for there is a sharp return to normal hemoglobin regeneration after the second

blood donation when iron therapy is relatively futile.

1. Santy, A. C.: Am. J. M. Sc. 201: 790 (June)
2. Fowler, W. M., and Barer, A. P.: J.A.M.A. (Feb. 7) 1942.
3. Barer, A. P., and Fowler, W. M.: Am. J. M. S (Jan.) 1943.
4. Fowler, W. M., Barer, A. P., and Spielhagen Arch. Int. Med. 59: 1024 (June) 1937.
5. Snapper, I., Liu, S., Chung, H., and Yü, T.: M. J. 56: 403 (Nov.) 1939.

1943 Scientific Exhibits Awards

The Committee on Scientific Awards is pleased to render the following report after careful study and evaluation of the Scientific Exhibits at the 1943 Annual Meeting of the Medical Society of the State of New York:

RESEARCH AWARDS

First Award: Abraham L. Kornzweig, M.D., Mount Sinai Hospital, New York—"Embryologic Development of the Cornea, Sclera, and Corneo-Scleral Junction."

Second Award: Udall J. Salmon, M.D., Samuel Geist, M.D., Charles S. Poole, M.D., and A. Austin Salmon, Mount Sinai Hospital, New York—"A Two-Hour Pregnancy Test."

CLINICAL AWARDS

First Award: S. A. Goldberg, M.D., Newark, New Jersey; S. N. Blackberg, M.D., Chicago; and P. Stanley, Newark, New Jersey—"The Pathology of Arthritis."

Second Award: Henry K. Taylor, M.D., Goldwater Memorial Hospital, New York—"Bone Infarcts and Aseptic Necrosis."

Honorable Mention: Lee A. Hadley, M.D., Syracuse University, Syracuse—"Cervical Spine Studies."

* * * * *

Special mention goes to the Army War Museum for timely and comprehensive charts on tropical diseases.

ELTON R. DICKSON, M.D., *Chairman*
WALTER P. ANDERTON, M.D.
WALTER G. HAYWARD, M.D.
WILLIAM A. GROAT, M.D.
NELSON G. RUSSELL, M.D.

CONTINUOUS CAUDAL ANESTHESIA IN OBSTETRICS*

Demonstration of Catheter Technic for Administration

FRANCIS R. IRVING, M.D., C. ALBERTSON LIPPINCOTT, M.D., and FRANK C. MEYER, M.D.,
Syracuse, New York

THE idea of injecting anesthetics into the caudal canal originated with Cathelin,¹ the French urologist, and Sicard,² working independently in 1901. Cathelin recommended his method primarily for the relief of bladder incontinence and enuresis in children—not as a method of surgical anesthesia. Since 1901 single injection caudal anesthesia has been extensively used in surgery. Lundy³ reports more than 15,000 cases at the Mayo Clinic. One of the first reports of its use in obstetrics was by Stoeckel,⁴ who reported 141 cases in 1909, using a single injection of novocain. In America it has been used by various investigators, including Meeker and Bonor (1923), Oldham (1925), and Rucker (1930). In 1939 Baptisti⁵ reported the successful use of single caudal anesthesia in 200 cases. Lahmann and Mietus⁶ (1942) reported its use in 400 obstetric cases. Most of these investigators used novocain and found the duration of anesthesia to be from forty minutes to one and one-half hours, depending on the strength and amount of solution used.

In September, 1942, Hingson and Edwards⁷ first reported the use of continuous caudal anesthesia during the early stages of labor and delivery in 33 cases. They used 1½ per cent mety-caine and obtained complete relief of pain and discomfort of active labor within five minutes after administration of the anesthetic. In every case there was immediate and complete relaxation of the cervix and perineum, with no interference with uterine contractions. Moreover, spontaneous respiration of the infant followed delivery immediately. In January, 1943, Hingson and Edwards⁸ reported the successful use of continuous caudal anesthesia in 589 obstetric cases, using a special malleable stainless steel No. 19 gage needle. Earlier they had used a No. 16 gage malleable silver needle but had trouble with breakage.

Lundy and Adams used continuous caudal anesthesia at the Mayo Clinic. However, instead of a malleable needle, since June, 1942, they have used a No. 5 ureteral catheter inserted into the caudal canal through a No. 13 gage Love-Barker spinal needle, thereby obviating the danger of a broken needle, a rather major

complication. Manalan⁹ reported on 46 cases in October, 1942, using a catheter technic for a single caudal injection, inserting the catheter into the caudal canal and allowing it to remain until the patient is ready for delivery and then injecting novocain.

Since October, 1942, we have used continuous caudal anesthesia in over 200 obstetric cases, employing the catheter instead of the malleable needle. There have been no major complications from its use. Since the catheter is flexible, it facilitates moving the patient to the delivery room, and she can move freely during labor, or remain on her back.

When selecting a method of painless childbirth, safety to the mother and the baby are of primary importance, while the relief of pain should be secondary. If the safety of the mother or child is jeopardized, any method should be condemned regardless of the analgesia obtained.

None of the methods heretofore employed can completely fulfill these requirements. If sufficient dosage of morphine, scopolamine, barbiturates, paraldehyde, rectal ether, and the like is used to obtain adequate relief, sleepy babies and increased length of the second stage will ensue. The incidence of operative deliveries is increased and a general anesthetic becomes necessary. As a result, many babies require artificial respiration; there is increased bleeding in the third stage, and the danger of pulmonary complications increases.

The ideal method should cause none of the above complications. Local anesthesia, like presacral or pudendal block, has no deleterious effect on mother or baby but cannot be used to relieve pain in the first stage. Continuous caudal anesthesia is essentially a regional or local anesthetic. It is available in the first stage, which it apparently shortens. It does not cause atony of the uterus. The babies are born wide awake and breathe and cry immediately. The relief of pain is dramatic. The stimulus of the head pressing against the pelvic floor and the desire to bear down are obliterated. There is, therefore, an increase in operative intervention. However, the perineum is so relaxed that the head can be easily delivered by forceps.

Continuous caudal anesthesia cannot be used in every case of childbirth. There are certain contraindications, such as pilonidal cyst, infection near the site of injection, cases of hypoten-

Read at the Annual Meeting of the Medical Society of the State of New York, Buffalo, May 4, 1943.

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* Preliminary report.

sion, and patients who are known to be sensitive to the drug. We believe that placenta praevia, ablatio placenta, and disproportion contraindicate its use. Although in our study we have used it more or less on unselected cases, we did not transgress to the extent of forgetting the mother's safety.

Since the cervix dilates rapidly in the majority of cases soon after the administration of the drug, especially if uterine contractions are frequent and well established, it is reasonable to assume that in central or partial placenta praevia the placenta would be rapidly detached from the lower uterine segment and severe hemorrhage follow, yet we have used it in one case of marginal placenta praevia in a multipara who went through delivery without any increase in bleeding. Since we have encountered cases in which there was a marked drop in blood pressure, sustained over a variable period, we feel that continuous caudal anesthesia is contraindicated when there is active hemorrhage from any source, or when hemorrhage is anticipated.

In 5 cases of inlet disproportion, in "border-line" pelvis, and 3 outlet contractions, continuous caudal was used successfully, the patients being finally delivered vaginally after a prolonged but comfortable labor. Version can be accomplished but the anesthetic is not ideal since the uterus is not relaxed.

Cardiac cases apparently do exceptionally well. We have used it in several instances of mitral stenosis, with excellent results. It is here that the method stands out; the patient is comfortable; the cervix dilates rapidly, and the desire to strain is absent. As a result, the heart is not called upon for extra effort as in ordinary labor.

Aside from the contraindications mentioned, it must be remembered that the method is time-consuming. A busy obstetrician cannot conduct a continuous caudal anesthesia in two hospitals at the same time. It is extremely necessary to observe and check the blood pressure, the fetal heart, and the height of anesthesia frequently. These rules must be followed; and the conduct of a case of this kind should not be left to a nurse.

Continuous caudal analgesia is simply a type of epidural anesthesia. The caudal canal lies between the lower end of the dura at S_2 and the end of the spinal canal at S_4 (the hiatus sacralis). It is usually at least an inch long and is filled with semiliquid fat, connective areolar tissue, and a venous plexus. It affords ready access to the epidural space. Since this space is closed at the lower end by a fibrous membrane (Cathelin's membrane), fluid deposited therein in excess of the volume of the canal flows up the spinal canal into the epidural space, where it "is likely . . . (it) . . . diffuses along the perineural lymphatics

to leave the epidural space at the intervertebral foramina and block the spinal nerves outside of the spinal canal" (Goodman and Gilman). The third, fourth, and fifth sacral nerves traverse the caudal canal for several centimeters and are exposed to the injected solution throughout that length; hence they are more thoroughly affected than the nerves in the higher epidural space. This anatomic arrangement, together with the fact that sensory nerves are more sensitive to local anesthetics than the motor nerves, makes it possible to anesthetize the higher levels of the birth canal by caudal injection, while at the same time we produce anesthesia and relaxation of the parts supplied by the lower sacral nerves.

Cleland,¹⁰ using Head's zones, demonstrated that pain sensation from the uterus (cervix) was carried to the eleventh and twelfth thoracic segments, and clinical observation indicates that if we block the nerves of this area epidurally we can block the pain of uterine contractions. Thus, by caudal injection of a local anesthetic we can produce analgesia for labor, and anesthesia and relaxation for delivery at the same time.

To produce continuous analgesia-anesthesia most advantageously a malleable needle or fine catheter is left in the caudal canal, through which an injection is made at various intervals. We have used the catheter technic. In the majority of our cases we employed a guide needle to locate the canal and a No. 13 gage needle through which to pass the No. 5 ureteral catheter, as was suggested by Adams, of the Mayo Clinic. Inasmuch as it is necessary to pass 2 needles through the sacral hiatus, this technic is more difficult than the use of the malleable needle, which required the placement of but one No. 19 gage needle. Recently we have revised this method by devising a No. 15 gage sleeve which will pass directly over a guide needle. This eliminates the difficulty in placing the larger needle as well as any chance of missing the hiatus with the second needle and catheter.

It requires sterile preparation of:

- Luer-Lok syringe
- Hypodermic needle
- Cup for local anesthetic
- Spinal needle, 20 gage
- Love-Barker spinal needle, 13 gage
- Ureteral catheter, No. 5
- Blunted 20-22 gage adapting needle, to fit bore of catheter, and rubber tubing with suitable connections, valves, reservoir, and injection apparatus

When the canal has been located with the No. 20 gage spinal needle and the initial injection completed, the No. 13 gage Love-Barker needle is placed in one of two ways. Either the No. 20 gage needle must be removed and the larger one put in at the same angle and place; or the larger

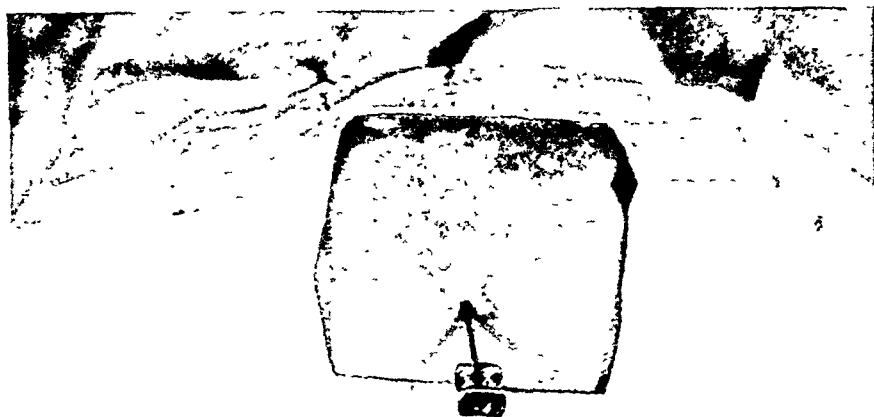


FIG. 1. The sleeve has been slipped over the hubless needle into the caudal canal and the guide needle removed.

needle may be introduced directly beneath the smaller, which serves to guide it into the sacral hiatus. The small needle is withdrawn and the insertion of the Love-Barker needle into the caudal canal is completed. The latter method is definitely easier and surer and has not, in more than 170 cases, resulted in damage to the smaller needle.

For our present method, we employ a 5-inch, No. 18 gage needle without hub, and a $2\frac{1}{2}$ -inch, No. 15 gage needle which has been reamed out so that it will pass over the No. 18 gage needle readily and also permit the introduction of a No. 4 ureteral catheter. The No. 15 gage needle has no point, but its tip is sharpened throughout its circumference and bevelled at 45 degrees.

To derive the full benefit of continuous caudal analgesia, we feel that it should be withheld until uterine contractions are well established and the cervix is at least 2 fingerbreadths dilated—preferably $2\frac{1}{2}$ to 3. If the time of induction is well chosen, the cervical dilatation usually increases 1 to 2 fingerbreadths as soon as analgesia is established—about ten to fifteen minutes.

Since the field of operation is extremely prone to contamination during labor and the puerperium, meticulous care in asepsis is essential. The skin over the sacrum, the lower back, and the buttocks is thoroughly scrubbed with green soap and water and painted with a suitable skin antiseptic. Then the patient is put in the left lateral or knee-elbow position and is draped with a sterile sheet that has a perforation 4 by 6 inches.

As in the technic described by Lundy, when the tip of the coccyx is palpated with the middle finger of the left hand, the thumb falls into the

V-shaped depression formed by the sacral cornua, between which lies the sacral hiatus. This is usually within an inch of the sacrococcygeal joint.

After preliminary infiltration of the skin, subcutaneous tissue, and Cathelin's membrane, a short interval is allowed for observing sensitivity to the drug. The short-bevelled, No. 18 gage hubless needle is then introduced at about 45 degrees so that the bevel parallels the skin and surface of the sacrum. With the bevel thus held, when the needle perforates the membrane and reaches the bone, it will then slide into the caudal canal as the outer end is depressed and the needle is advanced. Owing to the curvature of the sacrum, the point of the needle will strike the roof of the canal. By 180-degree rotation the bevel is brought parallel to the roof of the canal, and it will again advance with gentle pressure. If it is not in the caudal canal, it meets considerable resistance in the tough ligaments and tissue over the sacrum. This rotation and advancement is, in our hands, the most reliable sign that the needle is properly placed. The Luer-Lok syringe is now attached by a rubber catheter adapter and careful aspiration is performed for spinal fluid or blood. A small injection of anesthetic solution (0.1 to 0.2 cc.) is then made and aspiration is repeated. Blood is not infrequently encountered, in which case the position of the needle is changed slightly and gentle pressure is employed in the first injection.

In our series we have never encountered spinal fluid, but the danger is not to be minimized since, in the rare case, it is known that the dura may extend as far down as the fourth sacral segment.



FIG. 2. The catheter has been inserted into the caudal canal through the sleeve, which has been withdrawn.

If the dura were perforated, it would be best to discard the method in that particular case.

We make our first injection of 10 cc. of anesthetic immediately through the needle. The amount of pressure required to inject the drug is a valuable sign whether or not the needle is properly placed. If it is in the canal, the solution flows freely. Then, while we wait eight to ten minutes to observe signs of intraspinal or intravenous injection, we pass the 15-gage sleeve over the guide needle, then withdraw the latter, leaving the sleeve in the caudal canal (Fig. 1). The catheter is then inserted through the sleeve, which is withdrawn (Fig. 2). The catheter should be so adjusted that 8 to 10 cm., depending upon the thickness of the subcutaneous tissue, lies beneath the skin. If no untoward signs develop, the remainder of the initial dose of 25 to 30 cc. is injected through the catheter. If this is not in place, palpation over the sacrum may reveal an injection tumor. If properly placed, the patient, in a majority of cases, complains of cramping in one leg or both. In a few cases, she may complain of fullness over the sacrum or pain up the back, and, rarely, of a headache. The earliest signs that anesthesia is becoming effective are increased warmth of the soles of the feet and a shortening of the subjective pain.

In the individual patient the height of anesthesia is proportional to the amount of solution injected and the volume of caudal canal. We have not been able to correlate the height of anesthesia from the first dose with the size of the patient in all cases. It is, however, our policy to give a smaller dose—that is, 25 cc.—to small women. We have also found that if the patient gets a crampy sensation in the thigh after the first 10 cc., a total of 25 cc. is sufficient. In our experience, skin anesthesia has been observed as high as the second rib and as low as the clitoris, following the initial injection of 30 cc.

The skin opening about the catheter is sealed with collodion and padded with cotton. Dislodgment of the catheter is prevented by strapping with adhesive tape across the buttocks to the flank. The injection apparatus is then connected to the catheter by means of a blunted needle which fits snugly into the bore. The patient is now at liberty to roll on her back or on either side as desired. This greatly facilitates observation of the blood pressure or fetal heart and affords opportunity for rectal examination.

For continuous caudal anesthesia, we endeavor to maintain skin anesthesia to pinprick between the umbilicus and a point midway to the symphysis. The usual volume of subsequent injections is 20 cc. The time interval varies with the size of the caudal canal, the stage of labor, and the intensity of the "pains" and the drug employed. With metycaine, reinjection is usually necessary every thirty to forty minutes, with outside limits of twenty and sixty minutes. With pontocaine, the usual interval is sixty minutes, with limits of thirty and one hundred and fifty.

In analyzing our first 100 cases, we found that we had 10 failures, 7 of which were due to technical errors of the operator, who had had no previous experience with caudal injections. The remaining 3 were attributable to the procedure itself. Of the latter, 2 were cases in which caudal anesthesia was induced too late in labor to be effective. The third occurred early in our series and remains unexplained. Of the 7 technical errors, 4 occurred because analgesia wore off following the first injection, which had been made through the spinal needle and could not be renewed because the catheter had been incorrectly placed. In one case no sacral hiatus was found. The 2 remaining failures probably should not be so considered inasmuch as the analgesia was intentionally allowed to wear off. In one, cesarean section was decided upon for cephalopelvic disproportion. The other was one of our first cases, in which the analgesia was induced too early. Another case should be mentioned at this time. Immediately following the first injection we were unable to obtain pulse, blood pressure, or precordial heart sounds. Respirations were stertorous, and the patient was completely unresponsive; her color, however, remained good. Glucose, adrenalin, and coramine were administered and after forty minutes her condition gradually improved. She was delivered without further anesthesia. The apparent explanation is that at least part of the injection was intravenous.

A review of the series disclosed 17 cases in which the fetal heart rate fell below 100 and did not recover between the uterine contractions; and one case in which, immediately upon turning

FIGURE 3

TIME	BP	CERVIX	CS	M	STATION	POSN	FETAL HEART		CONTRACTIONS	MEDICATION	R OR V	REMARKS	EXAM'S INITIALS
							RATE	RYTHM					
4:35 P.M.	144/64	THIN, SOFT	3	I	-1		136	REG.	q 2'-40"		R		C.A.L.
4:45 P.M.										30 cc. 0.25% PONTOCALINE		PARTIAL RELIEF	
5:05 P.M.	118/64	THIN, SOFT	5	I	-1	ROR	136	REG.			R		C.A.L.
5:15 P.M.	120/62						140	REG.	q 2'-3'-50-60"	20 cc. 0.25% PONTOCALINE		AN. 1'-2" ↑ UMB. COMPLETE RELIEF AT 5:23 P.M.	
5:25 P.M.	128/70	FULLY		R	0		140	REG.			R	MEMBRANE RUPTURE ART. 5:27 P.M.	C.A.L.
5:50 P.M.	138/75						136	REG.		20 cc. 0.25% PONTOCALINE			
6:10 P.M.	126/70	FULLY		R	+2	ROR	124	REG.	q 3' 60"		R	NO PAIN	C.A.L.
6:30 P.M.										20 cc. 0.25% PONTOCALINE			
6:55 P.M.	122/75						140					AN. 1" ↑ UMB.	
7:05 P.M.	128/60						140	REG.	q 2'-50-60"	10 cc. 0.25% PONTOCALINE		CAPUT COMPLETE RELIEF	
7:20 P.M.												DELIVERY	
7:25 P.M.	130/60		POST PARTUM										

Fig. 3. Chart of a typical case illustrating the system of following the factors pertinent to the conduct of a continuous caudal anesthesia.

the patient on her back, following the first injection, the fetal heart could not be heard: it had been heard thirty minutes before.

Seventeen per cent fetal distress was alarming and required explanation. We considered several possible causes. At first, we thought that placing the patient in the knee-elbow position might predispose to pressure on the cord. Second, the drug employed might, after absorption, pass the placenta in sufficient concentration to have some direct effect on the fetus. Third, the fact that dilatation of the cervix took place so rapidly suggested the possibility that uterine tone and contractions might be greatly increased. And fourth, the observation of an almost bloodless uterus at cesarean section in a patient whose condition resembled shock suggested fetal anoxemia from ischemia of the uterus as a cause of fetal distress. This might be due either to maternal hypotension or to direct action of the anesthetic on the arteriolar bed in the uterus.

Before starting observation of the second 100 cases, we established definite rules and had a chart printed, so that the observations could be recorded immediately (Fig. 3). Blood pressure and fetal heart were taken and recorded before and after each injection, and at least every half-hour during the progress of the case. If warranted, these recordings were made every five to ten minutes. We have now compiled and present this preliminary analysis of 118 additional cases, in which we have tried to determine which factors

are significant in the causation of this unusually high percentage of fetal distress.

Our first step was to put the patients in the knee-elbow position for ten minutes at approximately the stage of labor where caudal block is usually started. This was done in 16 patients, and in no case was fetal distress observed. At the same time, we began our inductions in the lateral position, to see if the incidence in the two positions was comparable. We found that the ratios were not significantly different.

We attempted to study the toxicity of the anesthetic agent, but found that we were unable, with the tests available, to determine the concentrations in maternal and fetal blood. We then approached the problem by employing three other local anesthetics. Novocain, while not adequately studied, was found to produce satisfactory but brief analgesia in a 2 per cent solution. We ran 14 cases with monocain and found that with a 1 per cent solution complications of blood pressure and fetal heart were rare, but analgesia was not altogether satisfactory. In 1.25 per cent and 1.5 per cent solutions analgesia was excellent, but the incidence of sustained fall in blood pressure and fetal distress rose. Pontocaine was then tried. In a 0.2 per cent solution complications were rare, but again the analgesia was inadequate. In a 0.23 per cent solution analgesia was better. With a 0.25 per cent solution analgesia was satisfactory, though not as intense as with 1.5 per cent metycaine, but the complications were not

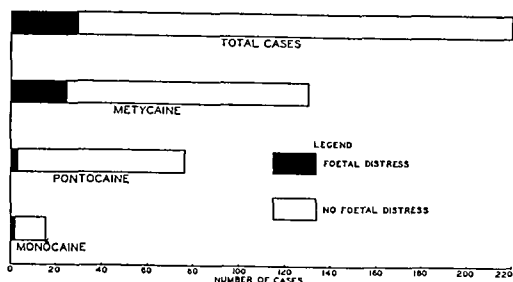
FIGURE NO. 4
INCIDENCE OF FOETAL DISTRESS

FIG. 4. Fetal distress in relation to the drug employed.

so distressingly frequent. All solutions are made with physiologic saline (Figs. 4 and 5). Up to the present time 0.25 per cent pontocaine has given us the most satisfactory results.

At this time we are unable to present any evidence that increased tonicity of the uterus or prolonged contractions exist or play any role in the production of fetal distress. Tocographic recordings, however, are being made. Clinical observation has failed to show that fetal distress was associated with partial tetany of the uterus, with the exception of one case which we have temporarily classified as probably unrelated to caudal anesthesia.

That anoxemia of the fetus is a factor in the mechanism of production of fetal distress in certain of our cases of continuous caudal analgesia seems fairly well founded by the observation that the administration of oxygen to the mother has uniformly resulted in prompt recovery of the fetal heart rate. Consideration of the pale uterus observed at cesarean section suggests ischemia of that organ as an intermediary factor. There are at least two possible explanations. Cannon and Rosenblueth¹¹ have shown that cocaine produces at the sympathetic myoneural junction a potentiation of sensitivity to adrenalin which we would expect to result in vasoconstriction and ischemia of the organ supplied. For this to be pertinent we must assume that there is adequate absorption of the drug into the blood stream.

In 8 cases we administered 1 cc. of adrenalin, 1:2,600 per 100 cc. of anesthetic solution, and observed fetal distress in 3. However, if vasoconstriction were a factor, we can see no reason for its being localized to the uterus and would expect that increased peripheral resistance would produce an elevation of the maternal blood pressure. This is not borne out by our clinical observation. We have found that, including the above 3, 9 of 12 of our cases of fetal distress in the last 118 were associated with a sustained fall in blood pressure. By a sustained fall we mean a

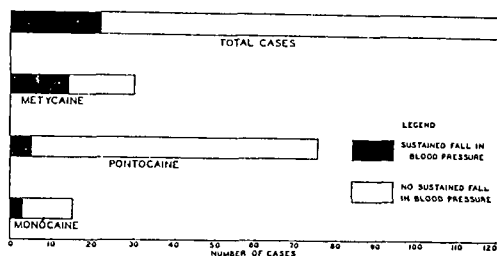
FIGURE NO. 5
INCIDENCE OF SUSTAINED FALL IN BLOOD PRESSURE

FIG. 5. Sustained fall in blood pressure in relation to the drug employed.

systolic pressure of less than 90 which remained so for at least one hour. We feel that the correlation between the sustained low blood pressure and fetal distress is significant (see Fig. 6). This is borne out by two observations: (1) the blood pressure and fetal heart rate recover together when anesthesia is allowed to wear off; and (2) the greater the blood pressure fall, the more frequent the fetal distress (Fig. 7).

Upon analysis, these patients with a sustained fall in blood pressure showed several uniform characteristics. (1) The drop in pressure was progressive. (2) A relatively high diastolic pressure was maintained; thus the pulse pressure suffered most. (3) The pulse rate rarely rose over 110 and occasionally fell to 50 or 60. (4) The patients were pale, showed varying degrees of apprehension, or apathy, but never displayed "cold sweats." (5) In some cases, the level of skin anesthesia was high, although in others it never rose above the umbilicus, while there were several cases of high anesthesia without serious fall in blood pressure.

If the patient exercised her leg and abdominal muscles while bearing down during the uterine contractions, the systolic and pulse pressures improved. In one case, in which the blood pressure was 44/38, elevation of the legs and massage of the thigh and calf muscles raised the blood pressure to 84/50 in four minutes. This rise, however, was attained in lessening degree as the maneuver was repeated.

These features are strikingly similar to those of so-called "spinal shock." Anatomically, subarachnoid and epidural anesthetics involve identical nerve paths. The blocks occur in slightly different locations, so comparison of "caudal shock" and "spinal shock" may not be justifiable. However, there is enough similarity to suggest that the same mechanisms are operative in both.

There remains to be explained only the great disparity in the frequency of "caudal shock" with the different drugs. A possible explanation is suggested by our experience in altering the strength of solution. We found that when we

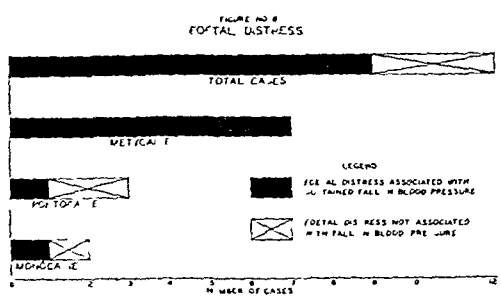


FIG 6 Nine out of 12 cases of fetal distress were in patients simultaneously manifesting a sustained low blood pressure. For each of the remaining 3, there was a clear obstetric explanation.

increased the concentrations of monocaïne and pontocaïne the incidence of blood pressure and fetal heart complications increased as well. We plan to use metycaine in lower concentrations to see whether, at the same time, we can lower the incidence of these complications.

In this series of 218 cases, we have had no maternal mortalities, there were 2 stillbirths, and 3 neonatal deaths. One of the stillbirths was a case in which a prolapsed cord and fetal death occurred twelve hours before caudal anesthesia was given. The other is the case discussed above, in which the fetal heart disappeared during the administration of the caudal. The neonatal deaths were all in very small babies, one weighed 2 pounds 13 ounces, the other two were 2-pound twins.

Our greatest dosage with metycaine was 9,900 mg., with monocaïne, 2,250 mg.; and with pontocaïne, 572 mg. The longest that we had the catheter in position was twenty-nine hours.

Several patients have complained of pain over the sacrum the day following delivery, and in 5 cases we have had superficial skin infections, but no abscesses.

We have had no apparent increase in postpartum morbidities, although we have found the second stage to be definitely prolonged and our figures show a significant increase in operative deliveries.

Reviewing 1,425 consecutive noncaudal deliveries and 218 caudal deliveries, we found the percentage increase as follows:

	High-Mid	Mid	Low	Prophy-lactic	Scan-zoni	Total
Noncaudal	0	2	9	57	4	74
Caudal	1	4	3	7	7	84

Summary

In summary, we have presented 218 cases of labor and delivery conducted under continuous caudal analgesia.

1. In 218 cases, we observed 29 cases of fetal distress, or 13.3 per cent.

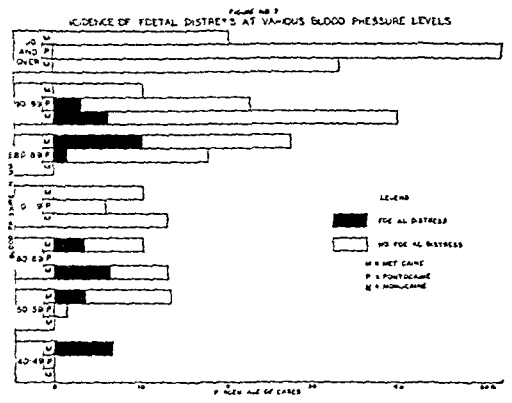


FIG 7. In the cases showing low systolic pressures, the percentage of fetal distress was proportionately greater at the lower pressure levels. Most of the cases of fetal distress represented at levels above 80 had obvious obstetric causes.

2. In 118 cases, we found a sustained fall in blood pressure in 22, or 18.6 per cent.

3. Of the 12 cases of fetal distress in the last 118 cases, 9, or 75 per cent, occurred in patients manifesting a sustained low blood pressure. In each of the remaining 3 cases there was a clear obstetric explanation for the fetal distress.

4. One stillbirth is presented for which there is no apparent obstetric reason, and which was probably a result of the caudal anesthesia.

5. We have set forth four possible explanations for the unusually high incidence of fetal distress and our observations which seem to have some bearing on this problem.

Comment

Continuous caudal anesthesia in obstetrics offers much in the way of painless childbirth. There is still a paucity of experience with its use. It is not yet entirely free of danger to mother or child. Much more experience will be needed before it can be offered to the public as a panacea. Until such time, its use should be restricted to well-staffed obstetric services.

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THE ROLE OF CORONARY ARTERIOSCLEROSIS IN CARDIAC HYPERTROPHY

HARRY GROSS, M.D., and JAMES R. LISA, M.D., New York City

THE question of whether or not coronary arteriosclerosis alone is an adequate cause of cardiac hypertrophy is still a disputed one. Numerous observers¹⁻⁵ found no causal relation of coronary artery disease to cardiac hypertrophy. Miller and Weiss⁶ reported extensive coronary artery disease with small hearts. Nemet and Gross⁵ observed severe coronary arteriosclerosis and myocardial damage in both large and small hearts but chronic congestive failure only in hypertrophied and dilated hearts. Hypertrophy, in the absence of other causes, was attributed to hypertension, either present or antecedent. Sutton and Davis,⁷ in experimental coronary occlusion, found that acute coronary closure and myocardial damage did not cause hypertrophy. However, animals exercised shortly after the onset of the acute lesion developed ventricular aneurysms due to local muscular weakness.

On the other hand, there are many proponents of the view that obstructive coronary artery disease with resulting impaired nutrition of the heart is a cause of cardiac hypertrophy.⁸⁻¹³ Blumgart¹² stated that the degree of such hypertrophy was definitely related to the severity of the coronary arteriosclerosis. Smith¹⁴ found cardiac hypertrophy in dogs after coronary artery ligation. Recently Katz and his co-workers¹⁵ approached the problem experimentally by producing cholesterol arteriosclerosis of the coronary arteries in rabbits. They concluded that a causal relationship existed between the two conditions.

It may be reasoned that severe coronary artery disease produces impairment of nutrition of the heart. Anemia from impairment of nutrition as a cause of hypertrophy was established by Goldstein and Boas¹⁶ and Nemet and Gross.¹⁷ Lewis and Drury¹⁸ also attributed to anemia cardiac hypertrophy in arteriovenous fistulas. Bland, White, and Garland¹⁹ showed that impairment of nutrition can lead to cardiac hypertrophy in anomalous origin of coronary arteries from the pulmonary artery in congenital heart disease.

In order to answer from clinical grounds the question whether coronary artery disease can cause cardiac hypertrophy, it is necessary to study cases of uncomplicated coronary disease. However, uncomplicated coronary arteriosclero-

sis is seen relatively infrequently in hospital practice and at necropsy, since this condition in hospital practice is associated in 90 per cent of the cases with hypertension. Moreover, in the presence of coronary artery disease, it is difficult to exclude hypertension since the blood pressure may fall after development of the disease. To conclude that the sclerosis caused cardiac hypertrophy, it would be necessary to show, over a long period of time, that starting with a normal-sized heart, progressive coronary artery disease caused progressive increase in heart size in the absence of failure. One would also have to show that during the time that the heart increased in size, there was no intervening period of hypertension. Data on such cases are necessarily few.

In order to obtain further data that would confirm or refute either of the two opposing views held in reference to the causal relationship between coronary arteriosclerosis and cardiac hypertrophy, the necropsies performed at City Hospital, Welfare Island, New York City, were studied. The cases were chosen on the bases of (1) heart weight of 400 Gm. or more, for a normal body build; (2) grossly evident coronary arteriosclerosis of moderate or marked degree; (3) absence of valvular lesions compatible with cardiac hypertrophy; (4) normal blood pressure findings while the patient was under observation in the hospital; (5) no known history of hypertension. Hypertrophy of the myocardium was confirmed by the histologic appearance of the myocardial fibers, generalized in distribution and not localized to areas of acute or chronic damage. Cases with acute coronary thrombosis were eliminated, since low blood pressures were not considered a correct index. Using these criteria, we found only 18 cases among 3,520 autopsies performed between January 1, 1928, and December 31, 1941.

The ages ranged from 58 to 88 years. There was only one patient below 60 years of age. In the seventh decade there were 7; in the eighth, 4; in the ninth, 6. Seventeen were men; there was only one woman, 84 years old.

Eight hearts weighed between 400 and 490 Gm.; half had moderate and half had severe coronary sclerosis. Four hearts weighed between 500 and 599 Gm. All had severe sclerosis. In the next group, weighing from 600 to 699 Gm., 3 had moderate and 2 had marked coronary sclerosis. The single heart of more than 700 Gm. had severe obstructive changes. It is evident that

From the Second Medical Division, Service of Dr. W. L. Whittemore, and the Pathological Laboratory, City Hospital, Welfare Island, Department of Hospitals, New York City.

TABLE I

No.	Sex	Age	Heart Weight (Gm.)		Cause of Death
1	M	76	625	Severe sclerosis, old bilateral occlusion; acute endocarditis	Chronic congestive heart failure
2	M	85	625	Moderate sclerosis; old infarct; chronic adhesive pericarditis	Chronic congestive heart failure
3	M	69	450	Severe sclerosis, old occlusion	Chronic congestive heart failure
4	M	67	850	Severe sclerosis, old infarct	Chronic congestive heart failure
5	M	68	475	Moderate sclerosis	Chronic congestive heart failure
6	M	83	600	Moderate sclerosis, old infarct	Chronic congestive heart failure
7	M	81	500	Severe sclerosis, old occlusion; acute endocarditis	Ruptured duodenal ulcer
8	M	88	450	Moderate sclerosis	Acute lobar pneumonia
9	M	58	600	Moderate sclerosis	Extensive cerebral thrombosis
10	F	84	490	Severe sclerosis	Extensive cerebral thrombosis
11	M	65	550	Severe sclerosis	Uremia
12	M	71	460	Moderate sclerosis	Carcinoma of bladder; pyelonephritis
13	M	62	690	Moderate sclerosis	Pylephlebitis
14	M	75	450	Moderate sclerosis	Acute empyema and peritonitis
15	M	64	425	Severe sclerosis	Carcinoma of esophagus
16	M	83	450	Severe sclerosis	Carcinoma of gallbladder
17	M	70	500	Severe sclerosis, old occlusion	Multiple cerebral hemorrhages
18	M	68	500	Severe sclerosis, aneurysm of ventricle	Cirrhosis of liver

the degree of coronary arteriosclerosis bore no relationship to the degree of cardiac hypertrophy (Table I).

When the cases were divided into those with and those without congestive failure, significant differences appeared. Six of the patients (Cases 1 through 6) were hospitalized for congestive failure; the others (Cases 7 through 18) were not. Two patients (Cases 7 and 8), although they were suffering from failure, were hospitalized for ruptured duodenal ulcer and for lobar pneumonia. The average heart weight of the eight cases in failure was 572 Gm.; in the 10 cases not in failure, the average weight was 511 Gm. Failure in this group, as reported by others, occurred with the greatly enlarged hearts. The former group also had the severe degrees of arteriosclerosis with marked narrowing or occlusion and healed infarcts. The occlusive features were less marked in the latter group although there was one instance of ventricular aneurysm.

The histologic examination of the kidneys revealed one noteworthy finding. Arteriolar sclerosis was present in each of the 18 cases. Although a few observers^{20,21,22} have reported instances of hypertension with normal kidneys, such cases are uncommon. The majority of studies^{23,24,25,1} indicate that renal arteriosclerosis is commonly associated with long-standing hypertension. The significance of the presence of this lesion in every one of the cases in the present series will be discussed later.

From a purely physiologic angle it seems plausible that chronic coronary artery disease with marked or progressive impairment of nutrition should lead to myocardial hypertrophy. As noted above, other conditions associated with chronically impaired nutrition are believed to cause it. The mechanism probably

is that impaired nutrition leads to increased diastolic length, which, if continued over a sufficient period of time, eventually may lead to hypertrophy.²⁶ While this concept appears reasonable in explaining the association of coronary arteriosclerosis and cardiac hypertrophy as one of cause and effect, nevertheless the findings fail to support this view both in the present series and also in clinical experience. Moreover, it is not justifiable to say that hypertrophy is due to coronary artery disease, unless one knows the size of the heart and the blood pressure figures before and after coronary closure and has followed the size of the heart for years after coronary closure. We are not acquainted with a single proved case in which, with an enlarged heart, some factor other than coronary disease was not present to explain the hypertrophy. It has also been our experience that inquiry of institutions where a patient has been previously hospitalized yields a surprisingly large number of answers confirming hypertension.

While our findings suggest that coronary artery disease does not cause cardiac hypertrophy, the association of the two conditions is well known. It is admitted that hypertension causes the hypertrophy, and it is believed that it also hastens the tempo of the development of sclerosis. In hospital practice coronary disease in patients with hypertrophied and dilated hearts is common. However, proof that coronary arteriosclerosis is not consistently found with hypertrophy is afforded by the fact that it occurs in as severe a degree in small hearts as it does in large hearts. Furthermore, hypertrophy is also frequently found in hearts with perfectly normal arteries. Moreover, in the present series there was no parallel between the degree of sclerosis

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ACTIVITY AS A THERAPEUTIC MEASURE IN THE PARKINSONIAN SYNDROMES

A. M. RABINER, M.D., and MORTON H. HAND, M.D., Brooklyn

NOWHERE in medicine has therapy been a greater disappointment than in the management of paralysis agitans. Sir James Parkinson called attention to the "shaking palsy" in 1817, and his description of the clinical picture can scarcely be improved upon today. Patients so affected are insidiously disabled by a progressive disorder of the central nervous system that produces two main symptoms. These are rigidity and tremor. It is the rigidity that accounts for the mask-like facial expression, the monotonous speech, the infrequency of winking, the statuesque gait with loss of associated arm movements, the festination, the lateral pulsion, and the slowing up of all motor activities. After remaining seated for a time these patients experience great difficulty in standing up, and after standing for a prolonged period they have the same difficulty in stepping away from the original position. The rigidity of the buccal musculature results in the drooling of saliva. The tremor occurs, in the main, when the affected muscles are at rest. Initiation of any voluntary act causes the tremor to cease. The tremor itself, therefore, is not of great importance in the production of any disability. The approximation of the thumb and index fingers, rhythmically, at rest, results in the so-called pill-rolling type of tremor.

The true form of paralysis agitans occurs as a rule in middle-aged individuals. The treatment has consisted of the administration of drugs belonging to the atropine-belladonna group. Reports from time to time have indicated that hyoscyne, stramonium, atropine, or belladonna have yielded good results. It may be stated with little fear of contradiction, however, that all drug therapy has been of little, if any, value when administered over a long period of time. When the use of medicinal preparations results in some benefit to the patient, increasing doses of the same drug must be given after a time, until eventually there is no continued alleviation of the symptoms. These patients become increasingly rigid, and the tremor becomes more marked. They seem to prefer to remain seated or to lie in bed until the rigidity is so extreme that if they are able to walk at all their appearance is that of a moving statue.

Some of the earlier clinicians advised exercise, massage, and activity. These recommendations were seldom heeded, and most physicians, having acquiesced to the patient's wish to retire from his occupation, have even prescribed rest. This only results in inactivity. Not infrequently such advice was necessary because many of these patients, being advanced in years, also presented evidences of hypertension and cardiovascular renal diseases.

A century after Sir James Parkinson described the clinical picture of paralysis agitans, the world pandemic of influenza occurred, followed by the epidemic of clinical syndromes that were grouped under the caption of "lethargic encephalitis." In the wake of this epidemic there ensued the chronicity of this insidious disease, producing, in young people as well as old, a train of symptoms very much resembling those of paralysis agitans. Like all imitations, these did not duplicate in their entirety the symptoms of the true disease. These patients developed the typical and disturbing rigidity and tremors, but they also had additional symptoms resulting from involvement of the midbrain region and the basal ganglia. Thus, they have varying degrees of ocular palsies, disturbances in conjugate ocular movements, oculogyric spasms, and bizarre movements of many muscle groups creating dyskinesiae like chorea, athetosis, and dystonia. A greasy appearance of the skin is a commonly associated symptom in the postencephalitic Parkinsonian syndrome.

The treatment of these postencephalitic patients followed in the path of that utilized for one hundred years or more for the bona fide paralysis agitans cases. In addition, various types of vaccines have been administered. Some recent reports have been made of the benefits derived from the use of vitamin therapy.

Many of the postencephalitic Parkinsonian patients are young people—even children. The fact that young people in the prime of life or at almost the commencement of life are stricken with this disease and permitted to become disabled and helpless invalids has prompted this attempt to direct attention to a regimen of therapy which, when adhered to, retards the unfavorable progress of the disease and at times restores the patient to some degree of usefulness, even though it does not effect a cure.

Muscle rigidity may be likened to frozen water. On a cold day water freezes. It is less apt to

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

From the Neurological Service, Jewish Sanitarium and Hospital for Chronic Diseases, Brooklyn.

and the degree of hypertrophy. The weights of the hearts ranged from 450 to 690 Gm with moderate sclerotic changes, and from 425 to 850 Gm. with severe changes.

The lack of an exact relationship between coronary disease and cardiac hypertrophy was further supported by a comparison of the two groups. Regardless of the severity of the coronary disease, the average heart weight was greater in those with failure than in those without failure. It is well known, however, that in hypertensive disease the failing hearts are heavier than those without failure. Our figures correspond with those generally reported in the literature. It appears to us, therefore, that the coronary artery disease is a coincidental finding only and has no causal relationship.

Renal arteriosclerosis was found in every case. This observation, we believe, is significant and important. Moritz and Oldt²⁵ found a correlation between hypertension and arteriosclerosis in 97 per cent of their cases. Among nonhypertensive patients they found that more than a very mild degree of arterial sclerosis of the kidneys was extremely rare. Bell and Clawson¹ likewise pointed out that this condition was seldom found in cases in which hypertension could be definitely excluded. Our experience has been similar and has led us to conclude that the histologic changes of the cortical arterial vessels are a more reliable criterion than manometric readings. The absence of a positive history does not exclude previous hypertension. It is known that manometric readings may fluctuate greatly and may return to normal levels after a period of elevation. Furthermore, in the present series, some of the patients were observed for only a short time. Others were suffering from severe acute illnesses which were adequate cause for a fall of blood pressure. We believe it necessary to assume antecedent hypertension in the presence of renal arteriosclerosis, even if neither hypertensive readings nor historical data were obtained. One other observation gave added weight to our assumption. The histologic examination of the hearts revealed the presence of myocardial hypertrophy, another feature commonly found in hypertension.

From this study we concluded that chronic coronary artery disease does not cause cardiac hypertrophy. If this be true, this observation has prognostic importance. It is now generally accepted that the cardinal feature of chronic

congestive failure of all types is cardiac hypertrophy. Any case of coronary disease may terminate suddenly. Barring such an eventuality, however, one may say that patients with chronic coronary artery disease do not commonly suffer from chronic congestive heart failure unless there is an associated hypertension or other cause of cardiac hypertrophy.

Summary and Conclusions

1 Eighteen cases of hypertrophied hearts with moderate to severe coronary artery disease are presented. In none were there raised blood pressure readings or a history of hypertension. The presence of renal arteriosclerosis in each case suggests that antecedent hypertension caused the cardiac hypertrophy.

2 No relationship could be demonstrated between the severity of coronary artery disease and the degree of cardiac hypertrophy. The association of coronary artery disease with cardiac hypertrophy is considered coincidental and to have no causal relation to the hypertrophy.

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*Give me health and a day and I will make the
pomp of emperors ridiculous*

—Ralph Waldo Emerson

FROM CIVILIAN PRACTICE TO NAVY MEDICINE

HAROLD J. HARRIS, Lt. Comdr. (MC), USNR

THERE probably is little that is new in the short discussion I have prepared. The change from civilian practice is much what one would expect it to be—a confusing experience requiring adjustment and self-discipline.

Active duty, in my instance, began in May, 1941, with assignment to the Brooklyn Naval Hospital, previous experience having consisted of two weeks of voluntary training duty in June, 1940. The purely medical duties were such as anyone capable of practicing medicine could readily perform. Mine consisted in taking charge of the acute medical wards as Ward Medical Officer, with a variable number of assistant medical officers who came to duty, became familiar with the work, and were sent elsewhere.

There would be nothing at all to relate if duties in the Navy were restricted to those of a physician. There is much more than that. The routine paper work seemed overwhelming to the newer reserve officers. Forms by the score deluged us, and, I confess, seemed superfluous in nature and multiplicity. Gradually it became evident that all these forms and procedures had their proper place in the scheme of the Navy, and that none could efficiently be dispensed with.

The Navy keeps a health record of every man who joins the service. The record contains every bit of information that has any bearing on the health of that man and therefore on his usefulness to the Navy—a record of his physical examination on enlistment, a very complete dental record (which may serve as the only means of identification in the event of death by fire or drowning), and a list of illnesses, injuries, and defects existing prior to enlistment. That record accompanies or follows the man wherever he goes and is always available, within a short period of time, for examination and for the addition of data such as routine inoculations, periodic physical examinations, and illnesses and injuries occurring subsequent to enlistment. It gives, in a small space, as complete a picture of the man as possible. That record alone justifies the seemingly endless forms and records, of which it is a summary, that one at first thinks of as mere red tape.

Of all the confusing and responsible duties that are encountered, the greatest are those concerned with the duties as Officer-of-the-Day in Navy

hospitals. That duty is usually assigned in rotation to all medical officers of the rank of lieutenant-commander and below. It entails the assumption of full responsibility for and full charge of the hospital, its personnel, and its patients for twenty-four-hour periods. Through the working day the Commanding Officer (who in naval hospitals is a physician), the Executive Officer (also a physician), and the regular staff of medical officers are also on duty; after 4:00 p.m., however, until the next morning at 10:00 a.m., the Senior Officer-of-the-Day is on his own—and God help him if his own is not good enough! He is the Commanding Officer, the Executive Officer, the department heads, and the staff officers all rolled into one. It takes weeks or months of such duty to arrive at a state approaching equanimity.

Probably I had the rudest shock that can be given to a sense of dignity when I was informed that, in addition to being a member of the Courts Martial Board, Nurses' Examining Board, and one or more other Boards, I was to be senior member of the Ship's Service Store Inventory Board. Ship's service stores sell to Navy personnel everything from shoe laces to trunks at prices just above cost, the profits being used for amusements, such as cinemas, for the personnel. It seemed incredible that a medical officer must drop his professional duties, go to the store, and actually count every shoe-lace, every candy bar, and every package of matches and gum. It became evident, however, that such was the case, that it had been for many years past, and that presumably it will continue to be.

Medicine in a naval hospital is interesting and is as varied as it is in any large civilian hospital, especially in one in which the dependents of officers and men are treated. If the newly enrolled reserve medical officer is an internist in civilian life, he is usually assigned to medical wards. Sometimes the exigencies of the work make it necessary to assign, temporarily, a surgeon to medical wards or an x-ray man to psychiatric wards, but in general one does the work he is best fitted for—or he may learn to adapt himself to specialties in which he has not practiced before entering the Navy.

Occasionally it may be difficult to understand the necessity for changing a pet method of treatment to conform to the available drugs or equipment. One's own prejudices in favor of one sulfonamide over another, for example, may lead to unhappiness, but, in general, everything that

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

Approved for publication by the Bureau of Medicine and Surgery, U.S. Navy.

freeze when moving. Calm water freezes quickly. These patients prefer to remain seated or to lie in bed. This creates a vicious cycle, for the inactivity permits them to become more rigid. Then, later, when they try to get up, after having been seated for a time, they appear to be glued to the seat and can rise only after a number of attempts. Sometimes they cannot arise from a seated position and must be helped up. If such patients lie in bed for a time, muscle rigidity results in actual muscular pains, of which they complain bitterly.

A bootblack stated that when he was employed shining shoes he felt well and had less tremor. On his day off he was rigid, and his tremor was worse. A young man, by continuing active games like handball and tennis, even though he had all the symptoms of the postencephalitic form of paralysis agitans, was able to carry on with his studies, was graduated as an accountant, and later practiced his profession. Another young man who had had acute encephalitis as a youth married and continued with his vocation for many years until he lost his job. When he brooded and became depressed, he developed such marked rigidity that he sought medical attention. During the years preceding his depression, he and his wife had been very active, riding horseback, and participating in other sports which thus retarded the development of muscle rigidity. A nurse has had a tremor for six years but by carrying on in her profession has never become disabled.

In 1924 Abrahamson and Rabiner* reported on a series of patients in an article entitled "Phasic and Permanent Mutations in Certain Encephalitic Syndromes." One of the patients, A. P., 11 years old, was so rigid that she was confined to bed, for she could not walk. The rigidity included not only the trunk, but also her face, and her speech was consequently slow and monotonous. She ate with difficulty, and her mother visited the institution daily to feed her. So she was all day, but at night she would get out of bed, wander around the ward, eat greedily, and laugh and chatter with the other patients.

A young girl, E. O., aged 20, was rigid and immobile and could not feed herself during the day. At night she became entirely relaxed, walked about with ease, and sometimes danced. S. S., a 17-year-old boy, was so rigid that in attempting to walk he toppled and crashed down like a statue falling from a pedestal. Yet, at times when visitors came and the phonograph was played, he would doff the rigidity that encased

his body like armor and would entertain his friends with Russian dances that called for great agility, rapidity of movement, and suppleness. We could describe in detail many other instances similar to these, for they are by now well known to all clinicians who have studied these syndromes.

At the time, these observations led one of us (R.) to introduce physical exercises to groups of these patients. Later an attempt was made to interest the city hospital administration in setting aside a building in which study and treatment of this postencephalitic syndrome could be properly continued. Unfortunately, this request was never granted.

In the years that have elapsed, persistent efforts have been made to stimulate interest in the importance of activity for these patients. It is interesting to note that in discussions of the value of the so-called Bulgarian treatment, which consists of the administration of a vinous decoction of *Atropa belladonna*, it has been emphasized that the best results are obtained when exercises are given to augment the medicinal preparation.

For a number of years now, at the Jewish Sanitarium and Hospital for Chronic Diseases in Brooklyn, routine exercises have been instituted for groups of these patients. These are given under the direction of an instructor, and the patients are advised to keep as active as possible.

Those patients who do not cooperate do not benefit from this regimen, but others are definitely improved. Following the exercises they move about more freely, walk better, are definitely happier, and instead of being helpless invalids requiring the aid of others in the performance of necessary functions, they even encourage and help other patients, force them to accompany them in walking, and become a part of the moral influence that has built up a spirit of hope to people who had been previously regarded as incurable.

We do not believe that activity offers a cure for Parkinsonism. We feel that these patients should not be advised to rest. They should be told to carry on in their vocation as long as possible and to resist the temptation to "stay put" in a sitting or lying position, which so many of them want to do.

It is obvious that this regimen is contraindicated in cases in which pathology of other organs would be aggravated by activity. Young people with a postencephalitic Parkinsonian syndrome should have routine exercises in addition to any of the several forms of medication previously described. Drugs without activity are of little, if any, value.

* Abrahamson and Rabiner: *Tr. Am. Neurol. A.* (1924); *J. Nerv. & Ment. Dis.* 60: 223 (Sept.) 1924.

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HAROLD J. HARRIS, Lt. Comdr. (MC), USNR

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Active duty, in my instance, began in May, 1941, with assignment to the Brooklyn Naval Hospital, previous experience having consisted of two weeks of voluntary training duty in June, 1940. The purely medical duties were such as anyone capable of practicing medicine could readily perform. Mine consisted in taking charge of the acute medical wards as Ward Medical Officer, with a variable number of assistant medical officers who came to duty, became familiar with the work, and were sent elsewhere.

There would be nothing at all to relate if duties in the Navy were restricted to those of a physician. There is much more than that. The routine paper work seemed overwhelming to the newer reserve officers. Forms by the score deluged us, and, I confess, seemed superfluous in nature and multiplicity. Gradually it became evident that all these forms and procedures had their proper place in the scheme of the Navy, and that none could efficiently be dispensed with.

The Navy keeps a health record of every man who joins the service. The record contains every bit of information that has any bearing on the health of that man and therefore on his usefulness to the Navy—a record of his physical examination on enlistment, a very complete dental record (which may serve as the only means of identification in the event of death by fire or drowning), and a list of illnesses, injuries, and defects existing prior to enlistment. That record accompanies or follows the man wherever he goes and is always available, within a short period of time, for examination and for the addition of data such as routine inoculations, periodic physical examinations, and illnesses and injuries occurring subsequent to enlistment. It gives, in a small space, as complete a picture of the man as possible. That record alone justifies the seemingly endless forms and records, of which it is a summary, that one at first thinks of as mere red tape.

Of all the confusing and responsible duties that are encountered, the greatest are those concerned with the duties as Officer-of-the-Day in Navy

Read at the Annual Meeting of the Medical Society of the State of New York, New York City, April 29, 1942.

Approved for publication by the Bureau of Medicine and Surgery, U.S. Navy.

hospitals. That duty is usually assigned in rotation to all medical officers of the rank of lieutenant-commander and below. It entails the assumption of full responsibility for and full charge of the hospital, its personnel, and its patients for twenty-four-hour periods. Through the working day the Commanding Officer (who in naval hospitals is a physician), the Executive Officer (also a physician), and the regular staff of medical officers are also on duty; after 4:00 p.m., however, until the next morning at 10:00 a.m., the Senior Officer-of-the-Day is on his own—and God help him if his own is not good enough! He is the Commanding Officer, the Executive Officer, the department heads, and the staff officers all rolled into one. It takes weeks or months of such duty to arrive at a state approaching equanimity.

Probably I had the rudest shock that can be given to a sense of dignity when I was informed that, in addition to being a member of the Courts Martial Board, Nurses' Examining Board, and one or more other Boards, I was to be senior member of the Ship's Service Store Inventory Board. Ship's service stores sell to Navy personnel everything from shoe laces to trunks at prices just above cost, the profits being used for amusements, such as cinemas, for the personnel. It seemed incredible that a medical officer must drop his professional duties, go to the store, and actually count every shoe-lace, every candy bar, and every package of matches and gum. It became evident, however, that such was the case, that it had been for many years past, and that presumably it will continue to be.

Medicine in a naval hospital is interesting and is as varied as it is in any large civilian hospital, especially in one in which the dependents of officers and men are treated. If the newly enrolled reserve medical officer is an internist in civilian life, he is usually assigned to medical wards. Sometimes the exigencies of the work make it necessary to assign, temporarily, a surgeon to medical wards or an x-ray man to psychiatric wards, but in general one does the work he is best fitted for—or he may learn to adapt himself to specialties in which he has not practiced before entering the Navy.

Occasionally it may be difficult to understand the necessity for changing a pet method of treatment to conform to the available drugs or equipment. One's own prejudices in favor of one sulfonamide over another, for example, may lead to unhappiness, but, in general, everything that

is essential is available, and patients receive treatment as good as it is humanly possible to give.

There are some very boring duties in various branches of the Navy Medical Department—examining recruits, conducting medical surveys, giving routine inoculations (and counting Hershey bars)—but, in the main, it is extremely interesting work and is likely to add much to one's knowledge of medicine. By way of illustration, rheumatic fever is of unusual occurrence in northern New York State; yet in about four months of Navy service I saw as many cases of rheumatic fever as I had seen in twenty years of civilian practice. Malaria is unknown in northern New York, but the British presented us with some very severe cases of the malignant tertian form from the west coast of Africa that one would have to travel far to see at first hand. Most important of all, to physicians and personnel and the country at large, Navy medicine is excellent medicine.

It is only in naval hospitals that medical officers are actually in full command. In all other establishments of the Navy—yards, barracks, receiving ships, training stations, air stations, and on ships of all types—line officers are in command. In these facilities, medical officers are heads or assistants in the medical departments, but they are responsible to the commanding officers. There is surprisingly little conflict here, however, for line officers usually entertain a wholesome respect for the opinions and decisions of medical officers and rarely go counter to them. However, many years ago, one commanding officer did, I am told by one of the survivors. His ship was put under quarantine restrictions by the medical officer attached to one of our gun boats lying off a South American port because of an epidemic of yellow fever in that port. Every officer and man was forbidden by the medical officer to go ashore. The commanding officer vacated that order, he and other officers and men went ashore, brought back yellow fever to the ship, and half of them, including the commanding officer, died. There is an even healthier respect for Navy doctors on the part of line officers since that time.

Physical therapy has had some of its greatest advances contributed by Navy medical officers. It is common now to find even small ships' sick bays equipped with at least short wave diathermy and infrared and ultraviolet generators, and manned by hospital corpsmen who are well trained in their use. Naval hospitals have very well equipped and staffed departments of physical therapy for this essential branch of medicine.

Nothing concerning sea duty will be discussed here, for as yet I have not been to sea. Before I

finish this discussion, orders for such duty may arrive. In one instance a lieutenant commander, medical corps, was given two hours to be detached from the hospital, to report to district headquarters, and to be on board a transport. In another, one of my assistant medical officers was given three hours to go through a similar procedure and report on board a cruiser. Most of us want sea duty—and most of us will get it before there is a victorious end to this war.

(EDITOR'S NOTE: After the above was written Dr. Harris was transferred from the naval hospital for duty at a receiving barracks and later to a ship. The remaining paragraphs deal with his subsequent experiences.)

Duty at a receiving barracks, receiving station, or receiving ship consists of general medical care, examinations, and inoculations of transient personnel and of the "ship's company." ("Ship's company" consists of personnel regularly on duty at the facility, now being largely replaced by civil service employees and WAVES to make the men available for sea duty.) Men are sent to such facilities to await new assignments—assignment to their first duty following training, or reassignment if they have missed their ships for one or another reason, such as hospitalization. Some are crews of ships which are being overhauled or repaired after damage in action. Others are men assigned to special duties such as radio school. In general, they are a husky lot and, therefore, present lesser and different problems than are encountered in hospital duty.

The medical officer and his assistants hold sick call at least twice daily for any who may need to be seen. Those with minor injuries, non-infectious and not serious illnesses are treated at once or put to bed in the sick bay. Those requiring much care are despatched to the nearest naval hospital. Equipment is adequate for all ordinary needs and includes basic laboratory and physical therapeutic procedures. Inspection of food and food handlers and of all sanitary facilities is carried out rigidly.

It was my good fortune to be ordered to serve as Senior Medical Officer aboard a combat troop ship with the amphibious force which participated in the African invasion. The ship was in process of conversion for its special mission when I was ordered to her, so the novel experience of supervising the construction and equipping of the hospital facilities fell to my lot. An adequate number of assistant medical officers for any eventuality was assigned, there was a period of training, and we took our place in that great undertaking which is now apparently approaching a successful climax.

Shipboard duties are very much the same as duties at shore stations except for those connected with expected or actual casualties. Provisions for first aid in all parts of the ship, particularly in the engine room and at gun stations, and preparations for the care of major injuries in two or more designated spaces, known as battle dressing stations, must be made. Boats and rafts must be equipped with at least elementary medical needs. Officers and men must be instructed in first aid, general health measures, venereal disease prevention, and the like. Food inspection and sanitary inspection of the ship is even more important than inspection at shore stations, for the food supply is not readily replaceable, nor can illness among personnel be countenanced if it is possibly preventable. Inoculation and reinoculation of the men must be done periodically. Here again the health record is the one positive source of information as to what the man has had and what he still must have. Obviously, the types of inoculations to be given depend to some degree on the territory that the ship is to enter.

The medical officer must have a knowledge of the ship that will allow an understanding of the needs and hazards of the men at their various tasks. Salt tablets for engine-room crew, dark adaptation provisions for the eyes of the crews assigned to deck, look-out, and gun duty, cotton for the ears of gun crews, and provisions for hoisting injured men from boats, from holds, and through narrow hatches, are among the many varied responsibilities of the ship's medical officer.

The usual sick-call is carried out two or three

times daily. All ships carrying medical officers have sick bays and operating rooms where adequate medical and surgical care may be given. When the ship is in port, patients requiring extensive diagnostic or treatment procedures, as well as patients with any communicable diseases, are ordinarily transferred to naval hospitals. At sea, all emergencies must be cared for at once—and most of them are cared for remarkably successfully.

Hospital corpsmen deserve all the credit that is given them in stories of this war—and more. They perform all the tasks essential to the running of the medical department, including rendering first aid, the upkeep of the hospital spaces, the keeping of records, and the nursing of the sick and injured. In addition they are sometimes used to supplement overworked gun crews and look-outs. Their willingness and efficiency can hardly be overpraised.

On one mission the Army officer in command of the troops on board particularly stressed the excellent cooperation the hospital corpsmen had given to the Army medical officers in caring for the soldiers. With a desire to let them know that their work was appreciated, I addressed them one morning at quarters, complimenting them on their work and mentioning the words of commendation. One young and extremely naive lad among them said: "Sir, I think that is just what we should do for the Army—after all, they are our allies, just like the Chinese."*

* NOTE: The opinions or assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

BLOOD CHANGES MAY SHOW RELATIONS OF NORTHERN RACES

"The Monthly Science News," of London, reports that the Blood Transfusion Service of Great Britain may add to our knowledge of relations and origins of northern races.

Similarities have been observed between the people of northern Britain and the people of the Scandinavian countries, evidence that strengthens the assumption that the Scandinavian people at one time had settlements in the British Isles.

Now the blood donor service has been responsible

for the collection of enough data to demonstrate the proportionate frequencies of the four blood groups, A, B, AB, and O. A and O change as one passes from south to north in Britain, for A becomes rarer and O becomes more common. Proportions of the types in southern England are most like those in neighboring continental countries. In Scandinavia the proportion of A is much higher than it is in southern England or the continent adjacent to England.—*N.Y. Herald Tribune*

DEVICE FOR DETECTING ABNORMAL BRAIN CONDITIONS

Invented by two scientists at the University of Edinburgh, Drs. R. Furth and E. A. Bevers, a new device has been perfected that will simplify the diagnosis of abnormal conditions of the brain.

The instrument, called an "encephalophone," operates on the principle of a submarine detector, with abnormalities of the brain changing the pitch of a constantly sounded note.

THE MODERN SPA, THE PHYSICIAN, AND THE PATIENT

WASHINGTON MERSCHER, M.D., Watkins Glen, New York

WITH the present upheaval in Europe, it seems that the American people are less likely to go abroad for their spa treatments for years to come. It is a well-recognized fact that the people of the Continent are much more conscious of the value of these resort cures than we are here in America. They believe that by frequent visits to these resorts they will maintain their present health standards and prevent future illnesses. We in America have been slow to realize the value of this procedure. We have also been prone to ignore health maintenance, disregarding early danger signals. Of all people in the world today, Americans—with their driving force and energy, their increasing mortality from heart disease, the startling increase of their angina and coronary thrombosis groups—are probably more in need of these modern spa methods than any other nationality group.

This should be a particularly apt time to present briefly and concisely what the American spa is capable of doing. There will be no attempt at a scientific interpretation of why certain results are obtained, for there have been numbers of papers presented on this and kindred subjects. The modern works on hydrotherapy cover this subject completely.

The type of people in the United States today who are taking advantage of spa treatments may be roughly divided into several groups. First, there are those who return annually or semi-annually. This group consists almost entirely of the advanced age group—those who realize the value of a few weeks of regulated hydrotherapy, diet control, and rest. This group should include today those who need it most, the group just entering their fifties and beyond. These people, having gone through the depression and the recession, are mentally and physically worn down. No one can dispute the effect of worry and the group of coronary disturbances that follow it. Members of this age group should today be made to realize the value of health and health maintenance. They are not hospital cases, but they cannot be left alone to work out their own schedules. Here is where the well-regulated spas can do their best work.

The second group who patronize spas are those who enter them sporadically to overcome the toxic or debilitating aftermath of acute illnesses, rheumatic flare-ups, anginal attacks, post-operative conditions, etc.

A third group is found in the overweight. A group comprises a fair number.

There is still another group, which fortunately is few in number. These people go from one place to another, comparing this with that. Their purpose is not a health motive. It may almost be classified as an unusual form of an escape mechanism—an attempt to avoid the realities of life. This is the group that does not add to the prestige of spas.

The question naturally arises as to the type of patients treated. The type of patients treated include those suffering from cardiac and neuro-circulatory ailments, arthritis, neuritis, sciatica, postmenopause, and metabolic conditions (obesity, glandular cases, diabetes, certain types of nephritis, convalescent, and rest cases)—all constituting a good cross section of general medicine.

The equipment of an institution handling this type of patient must be ample. Laboratory facilities are important. Facilities for x-ray and fluoroscopic examinations, cardiographic studies, and basal metabolism should be available. Such accessory methods for treatment as short wave, infrared and ultraviolet rays, and colonic irrigations are definite adjuncts. In the hydrotherapy and allied treatment group Nauheim baths, sinusoidal baths, packs, whirlpool baths, foam baths, showers, Scotch douche, mud packs, cabinets, ionophoresis, and massage are all important. For this last group there must be two sets of equipment because of the attendance of both men and women in treatment groups.

In addition to the above facilities, a well-planned Zander room, combining the mechanical exercises so necessary in cardiac cases with the extra physical work-out as an adjunct in the treatment of obesity, is of undoubted value. So are the graduated walks, as in the Oertel walking exercise. Last, but by no means least in importance, is the well-trained dietitian.

The admission of a patient to an institution of this type is usually by reference from the attending physician, with a complete history of findings and recommendations. On admission, there is usually a brief interview by one of the staff physicians, and an appointment is made for a complete physical examination. At this time arrangements are made for any special examinations that may be deemed necessary or that have been requested by the referring physician. For cardiac cases particularly, it is helpful here to get a heart diagram and a cardiograph for future comparisons. For arthritis patients, blood chemistry and sedimentation should be taken, and for

diet control cases a basal metabolism test is necessary.

A word of explanation here might be justifiable. Twenty-five years ago complete laboratory and special examinations were well within the scope of the spa, but today practically all this background work has been thoroughly gone into by the patient's home physician. Duplication of this work is an unnecessary expense to the patient and a source of resentment to both the patient and his physician. Upon completion of the examination and the compilation of the data obtained a letter containing a tabulation of the findings is written to the referring physician.

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Operators of spas have frequently been asked what line of treatment is followed, whether it is the same for all patients, etc. In answering these questions, it may be best to summarize the treatment of certain common conditions.

First, and probably most common, is the hypertensive cardiovascular group, and of these it is to be remembered that the moderately sclerotic and early coronary cases get the best results. Arteriosclerosis of the first part of the aorta is the least benefited. Exercise and rest

comprise the background of the treatment. Massage is begun moderately and gradually increased, and is followed by one hour of rest. The Nauheim baths are given from three to four times a week, with gradual increase in carbonation, a corresponding decrease in temperature, and, probably toward the end of the series, an increase in brine strength. The total number of baths in the series varies from 20 to 30. The Nauheim is a vasatonic treatment bath, with an hour's rest following.

Hot packs or abdominal fomentations will reduce a moderate degree of hypertension from 10 to 20 points. Electric cabinet, followed by spray and Scotch douche, is to be used with caution and only on those patients who have been carefully studied for circulatory balance and cardiac reserve.

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For arthritics in general, a program is followed that includes dietary control, the use of cabinets for elimination, fomentations, mud packs, massage or baking, and massage of the involved joints. The mud pack is an antiphlogistic and is used either alone or in the same treatment schedule with fomentations. Variation of the response of patients to either procedure determines which is to be given preference. The mud pack is applied at an average temperature of 106 to 110 F. for a period of from twenty to forty minutes. In arthritics special emphasis is to be paid to rest and heat, and this is where the short wave comes to the fore. Of particular value is the preliminary use of the infrared ray followed by the short wave. Also splendid results in arthritics can be obtained with histamine, in the form of imadyl unguentum. This may be used either in the form of massage or by ionophoresis. There is usually lessening of pain and an increased amount of motion. Not to be forgotten is the great value of the supplemental use of vitamins.

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In treating obesity it is possible to obtain splendid results, providing one has the complete cooperation of the patient. A diet background of 900 calories is a good maintenance one if attention is paid to the question of high protein, high mineral, and an adequate vitamin intake. Fluid intake must be carefully watched. The use of hot brine baths, the bubble bath, cabinets, massage, Zanders' exercises, and outdoor walks all help in the increased elimination that is so important in this condition. Here again, if the basal metabolism has been taken, the adjunct use of some of the thyroid or thyroid pituitary combinations has proved their value. Weight loss is not rapid and should not be because of the possible disturbance in general health.

The vagotonic upsets incidental to the post-menopausal period can be well taken care of in the modern spa. The regularity of life and the freedom from incidental worries and cares constitute the first gain. A comprehensive neuro-circulatory training regimen, hot air cabinets, spray showers, Scotch douche, salt rubs, massage, and physical exercise form a valuable group of aids. Again not to be neglected is the supplemental use of endocrine preparations.

As a conclusion, it might be fitting to give a brief summary of the Nauheim bath, its indications, methods of use, and results obtained. Natural carbon dioxide baths have been in use at various health resorts for many years, the most famous of these being the Spa Nauheim in Germany. The Nauheim baths are indicated in various forms of heart disease, hypertensive cardiovascular ailments, valvular heart disease, providing decompensation is not overwhelming, and in the various degrees of myocarditis. Again the bath may be used for its general circulatory effect during the convalescent period of the acute infections in which heart damage is actual or potential, as after scarlet fever, pneumonia, influenza, anginal attacks, and in coronary disease.

It is also useful for the vagotonic group in which the autonomic nervous system is constantly at war. The results include strengthening of the heart muscle, equalizing the circula-

tion, and producing a general sedative effect on the central nervous system.

The number, frequency, and strength of the baths, both as to saline content and carbon dioxide strength, are dependent entirely upon the patient and his response. At the Glen Springs the brine is a 12 per cent solution of sodium chloride, 4.12 per cent calcium chloride, with approximately 68 Mache units of radium activity, a natural brine derived from a spring on the grounds. This brine is stronger than that of the spring at Nauheim, and must be diluted with fresh water. It is artificially carbonated. The temperature of the Nauheim bath water is nearer the neutral point—approximately 96 F.—with weaker carbonation. The temperature during the series of baths is decreased, while the carbon dioxide saturation is increased. The increase in carbonation offsets any feeling of chilliness incidental to the decrease in the temperature of the water. The duration of the bath varies from a starting period of six or eight minutes up to a duration of from twelve to fifteen minutes by the end of the series, which constitutes an average of from 3 to 4 baths a week for a full course of from 20 to 30.

This presentation of treatment background naturally covers many phases not particularly familiar to the physician in general practice, for very few general hospitals except those of unusual scope are equipped with complete physiotherapy departments. The cost of installation and maintenance and the salaries of the attendants make it prohibitive to most. General hospital treatment and environment and those of the modern spa are very different. One cannot replace the other in their respective functions, yet each is to a certain extent dependent upon the other. Essentially, spa therapy is really a continuation treatment for acutely ill patients and a preventative and conservation treatment for those who do not need actual hospital care. In a spa, the treatment schedules can be carried out in quiet surroundings, with close dietary supervision and control of physical effort, with none of the hospital atmosphere that the ambulatory patient resents so keenly.

PUBLIC HEALTH CONFERENCE

The Executive Board of the American Public Health Association announces that the Association will sponsor a three-day Wartime Public Health Conference in New York City, October 12, 13, and 14. The seventy-second annual business meeting of the Association will be held in connection with it.

The Conference program will be devoted ex-

clusively to wartime emergency problems as they affect public health and the public health profession. New York City was selected because more than 40 per cent of the membership is concentrated in and immediately around it. The radio will be used as extensively as possible to bring the benefits of the Conference to health workers in distant states.

Therapeutics

CONFERENCES ON THERAPY

THESE are stenographic reports, slightly edited, of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and the New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors. The next report will appear in the July 1 issue and will concern "Treatment of Asthma and Hay Fever."

The Modern Treatment of Cirrhosis of the Liver and Hepatic Insufficiency

DR. DAVID P. BARR: From the standpoint of therapy, one of the most hopeless of diseases has been cirrhosis of the liver with hepatic insufficiency. Recently, however, some significant advances have been made.

This morning we plan to discuss the rationale of the therapy of cirrhosis of the liver. I have asked Dr. Deitrick to review the older literature on this subject and to tell us what might have been regarded as correct management a few years ago.

DR. JOHN E. DEITRICK: Until about 1900 or 1910 the diets as outlined in most textbooks and articles on cirrhosis of the liver were generally low in practically all constituents. Doctors were afraid of giving too much carbohydrate because it was thought that the consequent intestinal fermentation would be bad for cirrhotic patients. They were afraid to give protein because they believed that the badly damaged liver might have difficulty in handling protein. The intake of fats was not described in detail. So the diet which was used for years was composed chiefly of milk. The patient was given from 3 to 4 quarts of milk a day as soon as the diagnosis of cirrhosis of the liver was made and was kept on this milk diet usually for two, three, or four weeks. Then the diet was gradually increased by the addition of cereals, vegetable protein, and occasionally fish. The rationale for the dietary restrictions was based on the fact that all food substances had to pass through the liver, which was known to be badly damaged and presumably was unable to accomplish the necessary breakdown of protein, carbohydrate, and fat.

Then in the 1920's, experiments showed that high carbohydrate diets would protect the liver against certain poisons. These observations marked the first great change in the treatment of cirrhosis. A diet relatively low in protein was still advised, but instead of a low caloric diet, which had formerly been given, it was now proposed to increase the carbohydrate content so that the patient had a relatively normal or high caloric intake.

Innumerable other methods and therapeutic agents have been used in the past. Liver was used as early as 1900 or earlier. Crude liver was ground up and fed to these patients without any spectacular results. The old remedies included potassium iodide and calomel, although there seems to have been no definite rationale for them. Alcohol has always been taboo, for obvious reasons, and spicy foods have also been prohibited. Practically every therapeutic regimen for cirrhosis advised a laxative like Vichy water or a saline cathartic, usually magnesium sulfate. Decholin (dehydrocholic acid) was used as a cholagogue for a time; it is a bile salt known to stimulate the secretion of bile.

When the mercurial diuretics came into practical usage, they represented an advance in the handling of the patient with cirrhosis. They were not aimed so much at the treatment of the disease itself as they were at its complications, chiefly the ascites.

Surgery, as well as medicine, developed new techniques for the treatment of cirrhosis. The theory was that some unknown toxic agent was carried by the portal vein to the liver, causing progressive liver damage, so that various operations intended to shunt the portal blood into the greater circulation were performed. The Eck fistula was performed on human beings several times. Talma's operation or omentopexy was also attempted, with the object of promoting collateral circulation—that is, short-circuiting the liver. In this operation the peritoneal surfaces of the liver and the peritoneum were roughened and the omentum was sutured to the abdominal wall in the hope that adhesions would form and new blood vessels would grow through the adhesions to carry the blood around the liver to the superior vena cava. In some series improvement was reported in about 30 per cent of the cases. Whether the improvement applied only to the ascites or to the general nutrition of the patient is hard to determine.

Obviously, such operations were not done on a sound rational basis. It was purely a supposition

that toxic substances were carried in the portal circulation. Furthermore, we know that all the portal blood cannot be short-circuited through the greater circulation without serious complications.

Study of these therapeutic regimens reveals that they were based upon no clear understanding of the cause of cirrhosis. The outlook was hopeless and these measures were regarded as merely palliative.

DR. BARR: I have asked Dr. Charles L. Hoagland of the Rockefeller Hospital to present some of the newer ideas concerning the treatment of cirrhosis, and particularly to tell us of some of his own results in connection with the treatment of this disease.

DR. CHARLES L. HOAGLAND: Attention was first directed to the role of faulty nutrition in the production of human cirrhosis of the liver by the studies of Rao, who, in 1933, showed that a high incidence of cirrhosis occurred among members of the population of Southern India, where alcoholism is all but unknown. In these areas nutritional deficiencies in protein, fat, and vitamins, especially in vitamins A, C, and D, have occurred among members of the population for many years. In 1934, surveys made in Syria, where the incidence of cirrhosis is as high as it is in any part of the world and where chronic alcoholism does not exist, showed that the diets of most members of a congested population were extremely low in protein. In Italy, in those regions where pellagra is endemic, the incidence of cirrhosis has always been high, as it has been in the southern part of the United States, where pellagra has been a national problem since 1905. These facts, together with a growing awareness in this country, where half our cases of cirrhosis occur among chronic alcoholics, of the relation between chronic alcoholism and vitamin deficiencies, have served to focus our attention on a possible nutritional basis for hepatic cirrhosis. This realization, together with a rapidly growing background in the production of experimental cirrhosis in animals on diets low in protective catalysts, has, within the past five years, re-oriented completely our therapeutic approach to the management of this distressing disease.

Dr. Barr has asked me to speak briefly on the rationale of the present management of cirrhosis, a request which is some evidence in itself of a break on the part of therapeutists with the empiricism of the past, and a willingness to accept any ideas that the experimental laboratory has to offer toward the treatment of this disorder.

If we can demonstrate any progress whatever in regard to the therapy of cirrhosis based on results of the experimental laboratory, we can congratulate ourselves, for from the time of the

ancient physicians, medical writers have given this disease a fatal prognosis once ascites had appeared. I might say that therapy of the past decade, which concerned itself with glucose infusions, mercurial diuretics, saline purges, radical surgical procedures directed toward establishment of new vascular anastomoses, and various other means of supportive treatment, did not alter our fatalistic ideas concerning this disease during the time in which these modes of therapy were in vogue. I hope, however, that in recounting the failures of past therapy I am not encouraging the belief that present methods of management of cirrhosis are all that may be desired. We are far from the therapeutic ideal, but a certain amount of progress has been made, and the hope is very bright that further progress in our understanding and eventual successful management of this condition will be made as the complex nutritional background of this disease is further worked out.

To justify in detail the rationale of the modern management of hepatic cirrhosis would require not one but a series of discussions together with a comprehensive review of the greater part of the fields of experimental nutrition and biochemistry. Perhaps the best plan, therefore, would be to present the history of a typical case of advanced cirrhosis, with a résumé of the pertinent findings in the history and physical examination, and a detailed account of the therapeutic regimen. We shall later attempt to justify each item in the program of therapy on the basis of results obtained from the experimental laboratory.

A 48-year-old Puerto Rican woman presented herself at the Rockefeller Institute Hospital Clinic with massive ascites, pretibial and ankle edema, and pain in the abdomen. Two months before she had developed jaundice and ascites and had required the performance of one paracentesis. Physical examination showed a woman appearing old for her years, breathing rapidly, and in obvious distress. Her hair was sparse gray, and dry. Her skin was dry and jaundiced and her sclerae deeply icteric. There was symmetric scaling of hands and arms. There were several spider angiomas on the face, neck, and lower extremities. The veins on her neck and the upper portion of her chest were prominent. There was a marked *caput medusae* on the abdomen, extending into the flanks. The heart was displaced to the left, but returned to normal position after paracentesis and the removal of 6,000 cc. of clear, straw-colored fluid. Other positive findings included a taut, protuberant abdomen with eversion of the umbilicus, and a fluid wave. The liver margin, palpable after paracentesis, was about 4 finger breadths below the costal margin and appeared hard and

CLINICAL COURSE OF PATIENT M. C.

Date, 1941	Weight, Kg.	Average Daily Urine Output, Cc.	Paracentesis, Cc.	Daily Fluid Intake, Cc.	Remarks
Oct. 14	65	450	6,000	900	Dietary regimen begun; appetite poor; nausea
24	54.2	1,250	.....	1,200	
Nov. 4	64.5	420	6,500	1,000	Liver extract started
24	63.0	520	8,000	.....
Dec. 4	60	1,200	.....	.....	Appetite improved; no nausea
14	58	1,000	.....	.....
24	55.4	2,100	.....	.....
1942					
Jan. 1	52.0	1,250	.....	"	Sclerae less icteric
10	52.3	1,300	.....	"	Appetite good
20	54	1,150	.....	"	Discharged
June 1	53	1,200	.....	"	Clinic visit; improved

leathery. The spleen was not palpable. The patient's social history revealed a low economic status during her twenty years' residence in Puerto Rico and only a slightly improved status during her five years in the United States. There was a history of prolonged addiction to wine, rum, and whiskey, over a period of at least twenty years.

In preparation for base line studies, the patient was placed on a diet of approximately 350 Gm. of carbohydrate, 130 Gm. of protein, and 60 Gm. of fat. She was given daily, 25,000 units of vitamin A, 5,000 units of vitamin D, 100 mg. of ascorbic acid, 5 mg. of thiamine, 2 mg. of riboflavin, 1 mg. of pyridoxine, 50 mg. of nicotinic acid, 1 mg. of pantothenic acid, and sufficient soy bean lecithin to provide about 3 Gm. of choline daily.* The chart entitled "Clinical Course of Patient M. C." describes the clinical course of the patient during her period of hospitalization.

For several weeks after admission the urinary output was very low, and the patient continued to gain weight from the accumulation of ascitic fluid.

A second paracentesis was performed sixteen days after admission, with the removal of 6,500 cc. of fluid. Fifteen days later, a third paracentesis was performed, with the removal of 8,000 cc. of fluid. At this time the patient was started on 5 cc. of crude liver extract daily, administered intramuscularly, for one week, at which time dosage was reduced to 5 cc. three times weekly. The patient's improvement was dramatic from this point on, although I am not prepared to say that it is wholly due to the liver extract, since improvement in subsequent cases has not occurred so rapidly. No further paracenteses were required. The patient's urinary output became greater each day, with a corresponding loss in weight. From October 15, 1941, to January 15, 1942, the patient continued to improve, with no further ascites or demonstrable edema. She was discharged from the

hospital at this time and has returned twice a week to our outpatient clinic to receive intramuscular liver extract. The quantity has now been cut to two weekly doses of 5 cc. each. In the meantime she has remained for the most part on the initial diet, with continued supplements of vitamins A, D, and B complex. The lecithin has been discontinued.

The laboratory data afford additional objective evidence of improvement. On admission the erythrocyte count was 2.0 million; three months later it was 3.1 million. The hemoglobin in the meantime rose from 40 per cent to 65 per cent. An original blood serum albumin value of 0.9 Gm. had reached 2.8 Gm. per 100 cc. when the patient was discharged. The fibrinogen rose from a trace, too small to be determined accurately, to 0.1 Gm. per 100 cc. The plasma vitamin A rose from an initial level of 15 I.U. per 100 cc. to 70 I.U. The carotene level of 0.05 mg. per 100 cc. of plasma remained unchanged. A bromsulfalein liver function test showed 40 per cent retention in the blood after five minutes and 15 per cent after thirty minutes, which was a slight improvement. The hippuric acid excretion test was 50 per cent of normal on admission and not appreciably changed on discharge. An initial icterus index of 18 fell to 8 on discharge. This improvement was confirmed by the disappearance, clinically, of the icterus. Rationale for a high protein diet in the treatment of cirrhosis of the liver is best discussed along with the rationale for the inclusion of choline, and this, in turn, with the exclusion of fats, in so far as possible, since sharp delineation of the effects of each regimen is impossible at the moment.

In 1933 it was pointed out by a number of workers that a high incidence of cirrhosis was almost invariably associated with a previously low intake of protein over a period of years. Even more direct evidence for the protective effect of protein on hepatic processes has been obtained in the experimental animal. The importance of protein in liver protection was shown by Goldschmidt and his coworkers in

* Obtained gratis from the American Lecithin Company.

that toxic substances were carried in the portal circulation. Furthermore, we know that all the portal blood cannot be short-circuited through the greater circulation without serious complications.

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DR. BARR: I have asked Dr. Charles L. Hoagland of the Rockefeller Hospital to present some of the newer ideas concerning the treatment of cirrhosis, and particularly to tell us of some of his own results in connection with the treatment of this disease.

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ancient physicians, medical writers have given this disease a fatal prognosis once ascites had appeared. I might say that therapy of the past decade, which concerned itself with glucose infusions, mercurial diuretics, saline purges, radical surgical procedures directed toward establishment of new vascular anastomoses, and various other means of supportive treatment, did not alter our fatalistic ideas concerning this disease during the time in which these modes of therapy were in vogue. I hope, however, that in recounting the failures of past therapy I am not encouraging the belief that present methods of management of cirrhosis are all that may be desired. We are far from the therapeutic ideal, but a certain amount of progress has been made, and the hope is very bright that further progress in our understanding and eventual successful management of this condition will be made as the complex nutritional background of this disease is further worked out.

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liver extract. So far as I am aware, the French workers were the first to advance the idea that liver extract may be indicated on the basis of a replacement adjuvant. This aspect of the problem of the therapy of hepatic cirrhosis has interested me most, and we believe we have unequivocal evidence of its usefulness in those cases in which all the known requirements of the B-complex are met in excess. When all things have been done which seem to be indicated in the rational therapy of cirrhosis—such as high protein, high carbohydrate, low fat diet, choline, vitamin B complex, and vitamins A, D, and C—additional benefit may be obtained by the administration of relatively large quantities of liver extract parenterally, two to three times weekly. The evidence for the efficacy of liver extract in the patient whose case was described is not better than in several cases for whom we have been permitted to have longer base lines on controlled diet, choline, and B-complex administration before beginning liver extract therapy. We regret that exigencies of the war and the need for space in our hospital for patients from the United States Navy have for the time being interrupted this phase of our research. At the moment we are studying a number of cases with Dr. Elaine P. Ralli, on the Third Medical Division at Bellevue, where we are able to secure the objective biochemical tests on the number of patients required to prove this point. Obviously many cases, carefully studied, together with a series of alternate control cases, will be required before this matter can be settled unequivocally.

DR. BARR: The subject is now open for general discussion or questions.

DR. C. H. WHEELER: Dr. Hoagland, is there any evidence that this treatment produces actual regeneration of liver tissue, or does it simply arrest the changes which are under way?

DR. HOAGLAND: That is an interesting aspect of the problem.

For some time we have been seeking a test that would tell us when this process is arrested, and Dr. Hanger feels that such a test is embodied in the cephalin flocculation test, the results of which are believed to give some notion of the extent of the active process. If such a test is valid, it might enable us to get at just that problem. It is possible that we are providing an elaborate replacement regimen without reversing the hepatic process in the least.

In the case just presented the liver on palpation still appears as leathery as ever and leaves no doubt that cirrhosis remains.

DR. WHEELER: Do animal experiments throw any light on that point?

DR. HOAGLAND: Sebrell and others maintain that there is extensive regeneration, or hyperplasia, resulting from the administration of choline and methionine in their animals with experimental cirrhosis. Of course, the identity of liver cirrhosis in the rat with that of the human being is questionable, but the pathologists seem willing to say that the cirrhotic process in experimental animals resembles very much the pathologic process in human cirrhosis.

DR. McKEEN CATTELL: Do these cirrhotic livers regenerate after surgical operation?

DR. DEITRICK: I think it is fairly well accepted that regeneration may occur. The pathologists argue as to whether the biliary ducts themselves produce the new liver cells, and apparently some believe that they do.

DR. BARR: I think that it is a natural consequence of the destruction of portions of the liver to have a subsequent regeneration of uninvolved portions when the damaging process is no longer active. One explanation of the cause of cirrhosis of the liver has been either that certain factors prevented this natural regeneration or that the absence of certain factors was responsible for an absence of regeneration.

It is interesting that Mann found very active regeneration after partial removal of the liver, and he found also that in animals that were fed high protein diets, the regeneration was diminished or almost completely inhibited. So there came from the Mayo Clinic and elsewhere a prohibition against a high protein diet, which now is apparently completely reversed by the work which Dr. Whipple started and which is being continued in many other laboratories.

DR. HOAGLAND: Dr. Snell's cases were on a protein intake even higher than that in the case under discussion.

DR. BARR: Snell has recently expressed himself as being strongly in favor of a high protein diet.

DR. HARRY GOLD: After the active process of liver destruction has stopped, there still remains the problem of regeneration. May not a high protein intake continue to interfere with regeneration? If the liver is given too big a job to do in other directions, may not its growth slow down?

DR. HOAGLAND: Perhaps the stimulus to growth is removed by diets too high in replacement substances.

DR. EPHRAIM SHORR: Is there any evidence, Dr. Hoagland, of a related defect in renal function in these patients?

DR. HOAGLAND: I cannot quote anyone on this point, but I am distinctly under the impression that pathologists often find renal pathology associated with cirrhosis.

1939, as a result of their dietary studies on rats, when it was concluded that a diet high in protein, if given before the production of anesthesia with chloroform, reduced the incidence of hepatic cellular necrosis, even in livers with high lipid content. Whipple and his associates have confirmed this work and have shown that the effects of high protein intake in protecting the liver from chloroform injury can be duplicated by the addition of methionine and, to a lesser extent, of cystine to a diet low in protein. Moreover, Sebrell and his associates have demonstrated that in rats with liver cirrhosis produced on a low choline, low casein diet, improvement in the gross appearance of the liver and hyperplastic regeneration of liver cells occurred following treatment with choline and a high casein diet. Similar results have been obtained in protecting the liver of dogs from arsphenamine injury by the use of these substances. At the moment, many of the effects of high protein diets seem to be explained on the basis of their high content of methionine, which we now know can donate methyl groups for the formation of choline.

The lipotropic effects of choline are, of course, well known. The fact that cystine is also helpful in preventing dietary cirrhosis in rats is interesting, since it enters only indirectly into the transmethylation scheme, and also in view of the fact that Gyorgy and his associates have shown that the protective effects of choline and methionine against dietary cirrhosis can be reversed by large amounts of cystine in much the same manner that they can be reversed by fat supplements.

Optimism with respect to therapy of advanced cirrhosis of the liver is nearly always met with the statement that much of the defect appears to be a mechanical one brought about by fibrosis and liver shrinkage, and therefore that attempts to reverse the pathologic process are hopeless. In the past, the ascites, which is often the most troublesome feature of this disease, was explained on the basis of portal hypertension and consequent resistance to the flow of blood through the portal system. It is true that a portal hypertension may exist in many of these cases. It has even been measured directly by Thompson, Whipple, and others, and indirectly by post-mortem perfusion experiments. But Patek and Post have shown quite clearly, I think, that ascites is more definitely related to a marked deficit in plasma albumin, and that when, in spite of portal hypertension, a critical concentration of approximately 3.2 Gm. per 100 cc. of plasma albumin is reached, the ascites disappears rapidly, although no demonstrable change in portal hypertension has occurred.

Moreover, there are many instances when portal hypertension is marked, even though ascites is not noted. In these cases, the concentration of plasma albumin appears to be adequate.

The rationale for a low fat diet in cirrhosis has been argued for many years—first because it was realized that in the presence of interference with bile metabolism fats are not digested as effectively as they are in the normal person. Furthermore, since the work of Connor, it has generally been accepted that the appearance of fatty infiltration of the liver precedes the cirrhotic state and that effects of choline and methionine in reversing this process in animals can be prevented entirely by increasing the fat intake.

Rationale for the administration of large amounts of B-complex rests on a more empirical basis—that is, on the assumption that faulty metabolism of these substances may occur in the diseased liver, and, of course, on the recent observation of McCollum, Gyorgy, and others, that some protection against experimental cirrhosis is afforded by increasing the B-complex intake in animals. We have sought for more direct evidence of this faulty utilization in cirrhosis and have some evidence that the amount of nicotinic acid required to elevate blood coenzyme—the active, physiologic form of nicotinic acid—is greater than that required by the normal patient.

Evidence of an enhanced need for vitamin A in patients with cirrhosis of the liver is more convincing. Ninety-five per cent of the vitamin A stores are in the liver, and analyses on cirrhotic livers for vitamin A reveal in many instances a concentration of less than 10 per cent of this amount. Patek and others have shown that defects in adaptation to darkness may occur in patients with cirrhosis of long standing. Added to this may be a defect in the ability of the cirrhotic liver to convert carotene and carotenoid pigments into vitamin A. So far as we know, the liver is the only important site of the mechanism required for this conversion.

Evidence of vitamin K deficiency in prolonged cirrhosis is also strong. This deficiency arises in part as a result of deranged absorption due to altered bile pigment metabolism in the intestine and in part, perhaps, because of faulty utilization by the liver. When enough liver function remains in cirrhosis, vitamin K administered parenterally may enhance the prothrombin value.

The rationale for liver extract therapy is much harder to assess. Patek and others have given 5 cc. or more of crude liver extract weekly to their cirrhotic patients, as a source of vitamin B complex and of other required factors not yet defined, but which may be contained in crude

DR. BARR: And you believe that when you give all these supplements without the liver extract you are approximating the beneficial effects of the liver extract?

DR. HOAGLAND: In my opinion the liver extract is just one more part of the mosaic required for complete therapy.

DR. BARR: On the other hand, would you say that the converse is true—namely, that you could use liver extract alone without these other additions?

DR. HOAGLAND: We have a smaller series going in that direction, but I do not think the improvement is as marked as the other way around. Of course, the liver extract contains many of the other components so that it is very difficult to evaluate.

DR. BARR: What crude liver extract do you use?

DR. HOAGLAND: We make the crude liver extract in our own laboratory from Armour's liver powder, which is defatted with acetone. A continuous re-extraction of this material with hot water and treatment of the water extract with permutit removes any chill-producing substances. It is then bottled, and autoclaved, and subsequently tested for sterility and toxicity. It is still extremely crude compared to most liver extracts.

DR. BARR: Have you any experience with the crude liver extracts on the market, such as Valentine's crude liver extract? Do you know whether in practice one could use that with any degree of equivalence?

DR. HOAGLAND: I rather think that you might, because the procedure for making it is much the same. We have undertaken to assay the Valentine's and our own extracts for these various components with microbiologic methods, and they assay very closely in riboflavin, nicotinic, pantothenic, and biotin content. However, there is a great deal of variation in the choline content.

DR. REID R. HEFFNER: I gather from your remarks that the type of protein you use makes no difference. Patek, I believe, originally recommended that protein be derived from dairy products, particularly milk and eggs, and Snell recently recommended the same thing. Do you agree with that?

DR. HOAGLAND: I prefer the animal proteins because I think in general they are much higher in methionine and also in some of the other essential amino acids.

DR. WALTER MODELL: Is it practical to feed such patients large amounts of soy bean products? Before it is defatted, the soy bean has high protein and lecithin contents as well as a substantial amount of most vitamins.

DR. HOAGLAND: Not if it is refined too much. DR. MODELL: It is a complete food, and very cheap—about ten cents a pound.

DR. HOAGLAND: I know that choline is about one-twentieth as expensive in the form of soy bean lecithin as in the form of egg lecithin.

DR. WHEELER: Where do you obtain the lecithin?

DR. HOAGLAND: The soy bean lecithin can be obtained from the American Lecithin Company. It is put up in cookies, which some patients like very much.

STUDENT: You mentioned stabilization. Do these patients lose their ascites completely?

DR. HOAGLAND: The patient just described has lost her ascites entirely, and there is now no demonstrable pretibial edema. The ascites did not disappear, however, until the albumin content of the plasma rose appreciably.

STUDENT: Have you considered the possible return of the ascitic fluid to the patient?

DR. HOAGLAND: That would necessitate some rather involved biochemistry. We have considered the possibility.

DR. BARR: I know that has been tried but without brilliant results. I have no data on it myself.

DR. HOAGLAND: We have been interested in whether the protein make-up of the ascitic fluid is different from that of blood plasma. There is some evidence that it does differ.

DR. BARR: Thank you very much, Dr. Hoagland, for coming here today.

Summary

DR. JANET TRAVELL: Recent clinical studies yield evidence that cirrhosis of the liver is the result of a nutritional deficiency, and, furthermore, that the pathologic changes occurring in this condition can be reversed—or at least arrested—by replacement therapy. Thus, even in the patient with advanced cirrhosis and massive ascites, the outlook is no longer hopeless. Disappearance of ascites, pretibial edema, and jaundice, and the restoration of various objective findings to normal, or to approximately normal values, have been observed in such patients when they are placed on a suitable dietary regimen. Under these conditions, the blood serum albumin rises to about 3 Gm. per 100 cc.; the blood vitamin A and fibrinogen, the number of red blood cells, and the concentration of hemoglobin increase appreciably; the icteric index falls; and liver function tests may show some improvement.

The modern therapeutic regimen includes a high caloric, low fat, high protein, and high carbohydrate diet, supplements of vitamins A, C, D, and members of the B-complex, choline

Dr. SHORR: I wonder whether there are any studies of amino acid metabolism by which one could determine the ability of the liver to handle amino acids, since that is our present concept of deamination.

Dr. HOAGLAND: We know that there is no appreciable inability of the cirrhotic liver to convert glycocyamine to creatine by transmethylation from methionine.

Nitrogen balances indicate that many of these patients are often very near a negative balance.

Dr. SHORR: In fact, negative nitrogen balances, or precarious nitrogen balances, suggest that the influence of both estrogens and androgens might be utilized as adjuvants because of their sparing effect on nitrogen metabolism. Using physiologic doses of these substances, it is possible to increase retention to as much as 3.5 to 4 Gm. of nitrogen a day within a period of a week or two.

Dr. HOAGLAND: I am interested in your comment on the androgens and estrogens because it is thought that some of the gynecomastia and testicular degenerations that occur in these cases may be explained on the inability of the liver to detoxify estrogens.

Dr. SHORR: One occasionally gets evidence of very definite improvement with androgens, in cases not so carefully studied as this. Finally, in the acute case, after paracentesis has been performed and the plasma albumin has been found to be very low, would plasma transfusions provide a temporary stopgap until the patient's own regeneration permitted an endogenous elaboration?

Dr. HOAGLAND: A most dramatic relief from ascites has been observed in just such a case as you have mentioned. So far this has been tried in only one case.

Dr. SHORR: Does the lowering of the plasma protein have any effect on bone?

Dr. HOAGLAND: Yes, almost without exception these cases show marked decalcification of the bony skeleton. For that reason we felt that inclusion of vitamin D was important. The need for vitamin D is also evidenced in the precarious phosphorus balance which these patients show.

Dr. SHORR: Dr. Bowers has been studying one case in which enormous quantities of vitamin D were employed by mouth without effect and which brought up the possibility that there may at times be some defect in the gastrointestinal tract with respect to its absorption. I wonder whether the effect of intramuscular as compared with oral administration of vitamin A or D has been investigated in your cases.

Dr. HOAGLAND: We have attempted to get around this difficulty by giving vitamin A

parenterally. A much higher level of vitamin A is obtained by its intramuscular administration than when it is given by mouth.

Dr. GOLD: I should like to ask whether any benefit is derived from calcium administration in cirrhosis of the liver at any stage, and whether the chologogues play any part in the changes which occur.

Dr. HOAGLAND: One of the things I did not mention in the long list of therapeutic agents was the fact that we give our patients large amounts of bile salts. This patient received bile salts. I have not found any way to fit that into the research scheme, but I think it is rational.

Dr. GOLD: On the basis of promoting absorption from the gastrointestinal tract?

Dr. HOAGLAND: And perhaps to supply certain of those things that may be insufficient.

Dr. GOLD: And calcium?

Dr. HOAGLAND: I have no information about calcium. The calcium intake is materially increased, however, by the administration of the high protein diet.

Dr. SHORR: The presence of decalcification might persuade one to administer calcium along with large amounts of vitamin D.

Dr. WHEELER: Could you say a word, Dr. Hoagland, about the availability of these substances, such as choline and lecithin, to smaller hospitals and practicing physicians?

Dr. HOAGLAND: The lecithin choline is very cheap at the moment because it is a by-product in the manufacture of soy bean products, but I think that methionine is prohibitively expensive. It is about \$1.50 a gram, so that the best way to give it is by means of casein supplements or other proteins high in methionine—that is, the whole group of proteins of animal origin.

As for the vitamins, we have used the crystalline members of the B-complex because we wanted to control the ratios as nearly as possible. These are not prohibitively expensive, as you know, and they can even be purchased in mixtures about as cheaply as the B-complex from natural sources.

Dr. BARR: According to your chart, Dr. Hoagland, it would appear that this patient did not improve until the crude liver extract was given. Is that inference correct? Was there any demonstrable improvement before its administration?

Dr. HOAGLAND: There was no demonstrable improvement, but at the same time she was so critically ill that we were afraid to extend the base line any longer.

We have three other cases in which there was marked improvement on the regimen that I have outlined, without the liver extract.

Case Report

PNEUMOCOCCIC MENINGITIS

ROBERT C. SCHWARTZ, M.D., Syracuse, New York

THE mortality rate of pneumococcic meningitis¹ has always been very high in infants and children stricken with the disease. There has been only one previous report of a patient under 6 months of age who has recovered from this disease.² Therefore, another case report with complete recovery is of interest.

In this case, type specific pneumococcus rabbit serum and sulfapyridine were given, the pneumococcus serum having been obtained from the State Laboratories at Albany, New York. The organisms were identified and typed by Dr. O. D. Chapman at the City Laboratories at Syracuse, New York. The spinal fluid, as well as the blood culture, was both positive for type 33 *Pneumococcus* organisms. The serum was used intravenously and intramuscularly and the chemical, intravenously and orally.

Case Report

The patient was a well-developed and well-nourished infant girl, age 4½ months, weight 13 pounds 11 ounces. She was born May 31, 1941, the second child of healthy parents, neither of whom had recently had any colds or influenza. She was admitted to the Crouse Irving Hospital on October 17, 1941. She had been well previously and on an adequate diet. Her delivery had been normal, with no cyanosis, convulsion, vomiting, or other disturbances during the neonatal period. On October 12, 1941, five days before admission, she was taken with a low fever. Two days later both ears were apparently bulging, and bilateral paracentesis was done.* The fever, however, continued, and on the date of admission to the hospital her temperature went up to 105.6 F. She had a convulsive seizure followed by twitchings of the head, face, and right side of body. The pulse rate was 188, respiration rate, 48. She was irritable and resented interference. She had no head retraction or rigidity. She had bilateral positive Kernig's sign, and all reflexes were hyperactive. The ocular fundi were normal. The ear drums had recently been lanced and both had a purulent drainage. There was slight general redness of the throat; the lungs were clear, the heart sounds were rapid but normal, and the abdomen was distended and apparently tender but not rigid. Acute meningitis was the diagnosis, and lumbar puncture produced turbid cerebrospinal fluid under increased pressure. The fluid contained 2,680 cells per cu. mm., 75 of which were polymorphonuclears. There were 78 mg. of sugar and a slight increase in globulin. The blood count showed a hemoglobin of 65 per cent; red blood count, 3,800,000; white blood count, 2,900, with 84 per cent polymorphonuclears.

Sodium sulfapyridine in normal saline was started

at once, and by the end of twenty-four hours 3 Gm. of the chemical in 400 cc. of solution and 100 cc. of whole blood had been given intravenously. No change in the condition of the patient was noted until two hours after the specific antipneumococcus serum was given. The serum was started twelve hours after admission, and after test and intramuscular doses, 10 cc. were injected by vein. No reaction was noted.

The next day the temperature was down to 100.8 F., and the infant appeared much improved. Spinal fluid showed 250 cells, sugar 77 mg., and a slight increase in globulin. Sulfapyridine concentration in spinal fluid was 2.9 mg.; in blood, 4 mg. One-quarter gram of sulfapyridine every four hours was started orally and continued for the next ten days. Ten cubic centimeters of the serum were given intravenously for the next two days, with 10 cc. being given intramuscularly.

The temperature remained below 100.8 F. for the next twelve days. On the seventh day the blood sulfapyridine was 5.2 mg., and the spinal fluid showed only 15 lymphocytes, 43 mg. of sugar, no increase in globulin, and no growth in culture. The white blood count was 14,400 with 28 per cent polymorphonuclears.

X-ray studies of the mastoid area showed undeveloped mastoids. There was a decrease in the density in the left mastoid, which could have been the result of inflammation. X-ray studies of the chest showed the heart and lungs to be normal.†

On the twelfth day the temperature rose to 102 F. The spinal fluid showed 32 cells, 50 per cent polymorphonuclears and 50 per cent lymphocytes, with slightly increased globulin. The blood sulfapyridine concentration was 5.7; white blood count, 20,700, 70 per cent polymorphonuclears. A blood transfusion of 100 cc. was given and 20 cc. of antipneumococcus serum administered. Although the rise in temperature may have been due to a serum reaction, the serum was nevertheless readministered because of the return of irritability and a slight nuchal rigidity. The next day the child seemed much improved, and her temperature returned to normal. The spinal fluid showed 10 white blood cells, sugar 55 mg., and the white blood count was 8,800 with 53 polymorphonuclears.

From that date on, the child ate well, had a normal temperature, and had no return of symptoms. Spinal fluid examination on the thirtieth day showed 4 lymphocytes, 45 mg. of sugar, a white blood count of 10,000 with 40 per cent polymorphonuclears, hemoglobin 62 per cent, and a red blood count of 3,300,000.

During the thirty days of illness, the patient had 36 Gm. of sulfapyridine with no evidence of granulopenia or toxic symptoms from the drug. She received a total of 110 cc. of antipneumococcus serum (rabbit), type 33, supplied by the Division of Laboratories and Research, New York State Department of Health. Forty cc. were given intravenously and 70 cc. intramuscularly.

* Paracentesis was done by Dr. S. Stewart and Lt. Comm. N. Livshin, M.C., U.S.N.

† X-ray studies were done by Dr. C. Potter.

(as soy bean lecithin), and the parenteral administration of a crude liver extract. The injection of the liver extract apparently accelerates recovery, although it is not clear precisely what role it plays.

Many of the effects of the high protein diet are explainable on the basis of the increased intake of methionine which makes methyl groups available for the formation of choline. Animal experiments indicate that both methionine and choline exert a protective action on the liver which may be antagonized by fat supplements.

Many problems as to the effects of the various factors included in this dietary regimen still remain unsolved. For instance, a prohibition against a high protein diet in cirrhosis existed for many years because animal experiments showed that such a diet markedly inhibits regeneration of the liver after partial hepatectomy.

It remains an open question whether, after the active process of liver destruction is arrested, the high protein diet may not still continue to interfere with its regeneration.

PLANS FOR THE WAR BLINDED

Among the casualties of war few merit more immediate consideration than those who become sightless as a result of their national defense. In World War I, figures available, 243 American soldiers became blind. Thus far the number of British soldiers who have become sightless, including the men from Great Britain and the colonies, is somewhat less than a few hundred. Planning bodies, therefore, estimate that the number of Americans in the armed forces who become totally blind will not exceed a few hundred.

For the past six months representatives of the Surgeons General of the Army, the Navy, the Public Health Service, the administrator of the Veterans Administration, the Federal Board of Hospitalization, and the ophthalmologic committee of the Division of Medical Sciences of the National Research Council have been engaged in a study of the problem. An elaborate program has been developed to rehabilitate socially and economically those who become sightless. Sufficient funds have been provided by the Congress to meet every possible need. The plans contemplate utilization of existing agencies which deal with the blind.

However, public fund-raising campaigns are unnecessary since the over-all need is hardly sufficient to demand special expansion for this purpose in the services of unofficial agencies. In accordance with the executive order of the President, the social rehabilitation of the blind becomes a function of the Veterans Administration and is to be handled by the Division of Educational Rehabilitation and not the Medical Division. Through the cooperative effort now in process of development the rehabilitation will begin just as soon as the diagnosis is made and will continue from the time of reception of the invalid by the armed forces until the man can be discharged from the Veterans Administration physically, mentally, and socially rehabilitated.—J.A.M.A.

SWINE INFLUENZA VIRUS

Richard E. Shope, in an article in the February issue of the *Journal of Experimental Medicine*, shows that his work on the swine lungworm as a reservoir and intermediate host for the virus of swine influenza adds significantly to research on viruses.

He reports 98 experiments with transmission, using 216 swine and involving a three-year study of the lungworm as an intermediate host for the virus of swine influenza. Fifty of the experiments gave negative results. In the remaining forty-eight, transmission of virus by way of the lungworm was demonstrated in one or more animals used in each experiment. Irregularities in the results, Shope explains, would appear to be due not so much to lack of transmission of the masked virus by the lungworms as to failure to evoke its pathogenic capabilities.

During the summer months, May to August, inclusive, swine prepared by the injection of lungworms carrying virus were absolutely refractory to the provocation of influenza. They were also relatively refractory in September and October. Activation of the masked virus occurred most readily during the first four months of the year. In one experiment it was possible to demonstrate by direct means the presence of virus in the neighborhood of lungworms at the base of the lung at a time when the virus could not be demonstrated anywhere else in the respiratory tract. Masked virus of swine influenza was found to be present in lungworm ova obtained either from the respiratory tracts or from the feces of infected swine. In several instances masked virus persisted for over a year in lungworm larvae within the earthworm intermediate host, and in one of these its presence was demonstrated after thirty-two months. Finally it was found that lungworm ova obtained from convalescent swine which no longer carry swine influenza virus in infectious form in their respiratory tracts, contain a masked virus.—J.A.M.A.

AID FOR ADULT POLIOMYELITIS CASES

An appropriation of \$20,000 has been made in the state budget for the coming fiscal year to provide state aid for such remedial care of adult poliomyelitis cases as may be authorized by local boards of health and health officers, and approved by the

State Commissioner of Health, in accordance with the provisions of Section 19½, Article II-B, of the Public Health Law. Inquiries regarding procedures for making application for care should be directed to the district health officer.—*Health News*

Case Report

CONTACT DERMATITIS CAUSED BY DYES IN WEARING APPAREL*

E. L. KADISCH, M.D., New York City

THE study of allergic reactions to simple chemical compounds owes its recent great advances in particular to observations in cases of contact-type eczematous dermatitis. The following cases are reported as additional examples of this form of dermatitis because they illustrate certain phenomena of great practical and theoretic interest.

Case Reports

Case 1.—S. L., a man aged 67, was a tailor who had lived in New York City for thirty-two years. In 1923 he developed a cutaneous eruption which began on the left foot. The condition spread to the left wrist, the left buttock, and the left side of the scrotum, but cleared after a period of six months. In 1929 he had a recurrence on the hands, on the region about the eyes, and on the buttocks. At that time a diagnosis of dermatitis venenata was made at the Brooklyn Jewish Hospital. In 1934 he had an eruption over his entire body which lasted nine weeks and which in June, 1937, recurred, starting on the foot in the form of a vesicular eruption. A diagnosis of allergic dermatitis was made at that time at the New York Post-Graduate Hospital. In July, 1937, the patient was admitted to the City Hospital under the diagnosis of mastitis and a mastectomy was performed. In November, 1938, the patient was admitted to Montefiore Hospital.

When the patient entered Montefiore Hospital the diagnosis was uncertain; in January, 1939, the patient was presented by Dr. M. B. Sulzberger at the Bronx Dermatological Society as a case for diagnosis.¹ At that time the patient presented the following clinical picture: generalized thickening, lichenification, and hyperpigmentation of the skin with a well-healed scar at the site of the breast amputation. There was a leukoderma at the site of a healed burn on the right arm. A general lymphadenopathy was present. The hyperpigmentation affected also the buccal mucosa. A marked longitudinal ridging and a yellowish opacity of the nailbeds was noted. The laboratory findings were essentially negative. A sternal marrow puncture revealed an increase in eosinophilic myelocytes and eosinophilic polymorphonuclear leukocytes. No leukemia was evident.

A biopsy of an axillary node showed chronic proliferative lymphadenitis. The biopsy of the skin showed a thinned epidermis with several areas of cellular infiltration beneath it. This infiltration consisted of lymphocytes, fibroblasts, and an occasional eosinophilic leukocyte, and a few plasma cells.

Under bland local treatment—perhaps also under the influence of hospitalization—the skin improved sufficiently during the ensuing weeks to permit the performance of patch and scratch tests.

Scratch tests performed with 82 foods and inhalant protein extracts were entirely negative.

* Work done under the Jennie and Siegfried Peierls Fellowship at Montefiore Hospital for Chronic Diseases, New York. Dermatologic Service of Dr. Fred Wise.

¹ Sulzberger, M. B.: Arch. Dermat. & Syph. 40: 337 (1939).

Thirty-five patch tests performed with various allergens to which the patient had been exposed at home or at his occupation revealed the following positive findings (Fig. 1):

Suit lining.....	++
Suit clothes.....	++++
New suit material.....	++++
One pair of socks.....	++++
Shoes, tongue lining.....	++++
Tongue outside.....	++++
Leather lining.....	++++
Lining of another pair of shoes.....	++++

It may be mentioned that the lining of the new suit and the leather of the soles of the shoes were negative.

When the patient had greatly improved, owing to hospitalization and treatment as well as to the avoidance of all articles which had been found to cause reactions when used in patch tests, he was discharged and returned to his home under the following precautions: A special suit and special shoes were made to order after all materials, including the threads and buttons, had been tested. In other words, his new wearing apparel was made from materials which failed to produce patch test reactions on his skin. Since the patient's discharge more than two years ago, he has had no recurrences. There is no itching and even the pronounced brownish generalized discoloration has become considerably less intensive. The patient is now occupied in a type of work which entails exposure to only undyed materials. It is now easy to account for the recurrences which regularly followed all dismissals (or releases) from the various hospitals: Each time the patient left the hospital where his skin had improved, he had been given his garments and shoes, precipitating an immediate recurrence of his dermatitis.

Case 2.—S. G., a man aged 58, a motion picture theater manager, gave a family and individual history that was negative for allergic diseases, yet he had had frequent attacks of bronchitis and one of lobar pneumonia many years before. His cutaneous eruption started in the interdigital spaces of the feet in October, 1938, and subsequently spread over the entire body. He had many recurrences, the cause of which could not be found. The relapses often occurred immediately after leaving the hospital or after returning to his home. At the time of his hospitalization at the Post-Graduate Hospital the eruption was characterized by pruritus, erythema, and particularly by groups of follicular papules. The back and the extensor surfaces of the arms presented the most severe changes. Between the toes there was scaliness, erythema, and maceration. The physical examination, routine blood and urine examinations, the basal metabolic rate, and the electrocardiogram were all entirely negative.

Discussion

Before antipneumococcus serum and the sulfonamide compounds were introduced, the mortality rate of pneumococcal meningitis was very high. According to W. T. Cooke,³ the fatality rate in the first year of life is extremely high, but between the ages of 5 and 40 the prospects of cure are good unless there is an associated severe infection such as pansinusitis, ulcerative endocarditis, or sinus thrombosis. The death rate is high for patients under 3 years and over 50 years of age. Case reports with recovery in the high mortality age groups are few, but they should encourage the

clinician as to prognosis with proper treatment.

Summary

1. A case of pneumococcal meningitis, with recovery, in a child of 4½ months is reported.
2. Sulfapyridine and specific antipneumococcus rabbit serum were used.
3. This is the second case of complete recovery to be reported in an infant under 6 months of age.

References

1. Neil, Josephine, et al.: J.A.M.A. 115: 205 (Dec. 14) 1940.
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3. Cooke, W. T.: Lancet 2: 510 (Nov. 1) 1941.

TO COMBAT DEAFNESS

Washington County, Maryland, is inaugurating a program for the prevention of deafness, to be conducted as a function of Services for Crippled Children. The need of such a program may be gleaned from a previous survey, which has shown that about 2.5 per cent of school children in the county have impaired hearing. The program will augment the limited facilities for otolaryngology in the community and will provide for radon therapy for adenoid tissue.

The following immediate steps are projected: (1) Education of parents in the necessity for proper medical care for children with acute otitis media. This is to be accomplished through Parent-Teacher Association meetings, distribution of pamphlets, newspapers, preschool and school medical conferences and home nursing visits, especially for school children with earaches. (2) Testing of hearing in public and parochial schools. Each child will be tested approximately three times during his school life. The screening test will be performed by a trained technician from the Frederick School for the Deaf. (3) Establishment of an ear, nose, and throat clinic to be conducted by a trained specialist. Provisions will be made by arrangement with the local hospital and the local ear, nose, and throat profession for special treatment, such as tonsil and adenoid operations and mastoid operations.

The project is to be a cooperative study by the health agencies, the medical societies, and the state board of education. The private physician is to be brought into active participation in this program. —J.A.M.A.

DOCTORS ON THE HOME FRONT

A page from the physician's diary: "Doctors left in private practice are very much like the private automobiles: they must be carefully preserved for the duration, must not be used for 'pleasure driving,' the production of new models is sharply curtailed, old models must be renovated and brought back into service, and retirement of obsolete and antiquated ones must be reduced to a minimum. With most of the young, efficient, energetic, and patriotic doctors responding to the great need of our armed forces for medical aid, it is necessary that those old and physically disqualified be kept in proper physical condition to carry on without danger to themselves or to the workers on the home front.

"It would appear that doctors on the home front must abandon their individualistic medical isolationism and take upon themselves the herculean task of community health problems. They must teach their patients the importance of proper nutrition, the principles of mental and physical hygiene, how to obtain the maximum results from preventive medical measures, and to a large extent they must assume a more active and aggressive participation in public health matters. For decades we have idealized the 'family counselor' role of the doctor and now is the time to emphasize this ideal. Physicians on the home front have a tremendous responsibility and one that is not likely to increase their longevity, but they will be happy in the knowledge of their indispensability, and their ability to lighten some of the cruel and heart-rending blows—inevitable to a war-weary people!" —Texas State J. Med.

ARMY MEDICAL CENTER CUTTING DEATH RATE

According to official news releases, the Army's vast medical center in Washington, D.C., is cutting the war death rate by thousands and returning the wounded to health as rapidly as modern techniques can make it possible. The emergency capacity of the hospital is 3,225, and officers and enlisted men from all theaters of war are brought there for treatment.

Among the especially successful departments is the division of plastic surgery, which has been treating soldiers who have suffered head wounds and burns. A relatively new technique is being used

with the Padgett dermatome for skin grafting. The dermatome was developed by Dr. Earl C. Padgett, of Kansas City, Missouri.

The encephalograph, recently invented instrument for the detection of brain tumors and other disorders, is also in use at the center.

The center is equipped with a dental laboratory that regularly stocks 70,000 false teeth, of which approximately 16,000 are used monthly. There is also a complete shop for the manufacture of artificial limbs and braces, although sulfa drugs have materially reduced amputations.



FIG. 2. Back of the patient. The rash is not present at those places which were better protected against contact with the allergen.

One patient who reacted to the lining of one of his suits was so highly sensitive that he even reacted to the water in which this lining was washed.

Although the allergen may be present originally in the material of a single suit, it may "contaminate"

shirts and underwear and thus be indirectly brought in contact with the skin.

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CANCER AND THE WAR

Today there are many urgent activities and causes linked with the struggle against our enemies which clamor for our attention and time. How does cancer control fit into today's war pattern?

The answer should be obvious. In upstate New York there are thirty thousand men, women, and children who have some form of cancer. Thousands of them are working in war industries or in other useful occupations; thousands of others are fulfilling equally important work in maintaining households. Almost half of them are under the age of 60. As for those who are older—well, any plant manager can tell you that some of his best workers are over 60. Whatever we do to help the cancer patient get treatment early and increase his years of useful life unquestionably and directly aids the war effort.

But the war has done more than give practical

importance to the lives of those who have or who may develop cancer. It has set in the path of cancer control new obstacles which call for new approaches and more intense activity. We must face the fact that with fewer physicians in civilian life has come an even greater tendency than before to put off consulting a doctor for the early symptoms which may mean early cancer. And yet the doctor still wants to be consulted about these early symptoms.

He still wants to see the woman who has discovered a small lump in the breast; he wants to see her the following day, not two months later. He wants this for the selfish reason that it takes less of his time and energy to cure an early case of cancer than to care for an advanced case Morton L. Levin, M.D., in "News Letter," *Women's Field Army Against Cancer*



FIG. 1. Patch test reactions of the patient to the material of his socks and to the lining and leather of the tongue of his shoes.

The patient was transferred to the Montefiore Hospital, where the skin cleared up within six weeks after admission, under local application of various bland remedies. The rapid improvement was sometimes interrupted by a sudden standstill or even a slight recurrence while he was under treatment. He complained particularly of itching, which usually occurred simultaneously with or slightly preceding erythematous follicular eruptions, which were mainly on the upper part of the back, the clavicular region, and the radial aspect of the forearms.

This persisted for a period of four or five days.

On this patient an interesting observation could be made pertaining to the protective effect of a lotion containing zinc oxide 96 Gm., talcum 96 Gm., glycerine 72 Gm., and alcohol 72 Gm. in 400 cc. of water. It was repeatedly found that certain areas on the patient's back which had been painted with two or more layers of this lotion were less affected during the recurrences of the patient's dermatosis than other areas which happened to be covered with only one layer of the lotion (Fig. 2). This finding could be best understood on the basis of the theory that the two or more layers of the lotion protect more effectively against an unknown contact allergen than a single layer does. Patch tests with numerous materials contained in the patient's clothing were therefore made. These proved the patient to be extremely sensitive to the brown lining of a coat and vest. A patch test performed with 2 per cent paraphenyldiamine in vaseline, as well as a test performed with this brown lining, caused a strong reaction which was not healed after three weeks, and even after three months the site of these first tests could be detected and a slight elevation could be felt.

When the patient was considerably improved, he was asked to wear his suit. This resulted in severe itching approximately one-half hour afterward. This itching became progressively more severe, and although the suit was removed immediately after the onset of the itching, this clinical test was followed by the typical generalized eruption similar to the one which he had presented upon admission. The erythema appeared first on the upper part of the back and over the shoulders, in those areas where the dyed materials had the most intimate contact with the skin. The arrangement of the lesions on the arms showed similar characteristics, the rash being symmetrically distributed and the borders following the anatomic configuration.

A similar clinical test, executed with material which had elicited negative patch test reactions on the patient's skin, did not result in any subjective or objective evidence of a recurrence of the patient's dermatosis.

Subsequent patch tests performed with a number of other materials from this patient's clothing produced positive reactions to the material of two shirts and the outer material of a tie. However, even these weak reactions were proved to be of great clinical importance. When the patient wore one of these shirts, it produced a definite, although not very severe, relapse.

Five grams of the lining of the above-mentioned brown suit were taken, and the material was immersed in 10 cc. of water for ten minutes. After this piece of lining had been wrung carefully, it was placed in another 10 cc. of water in which it was permitted to soak again for ten minutes. This procedure was repeated for a total of twelve times, and the resulting wash waters were then applied under patch tests on the arm of the patient. These wash waters, which did not cause any reactions on several control individuals, elicited vesicular reactions so strong that approximately three weeks were required for their healing.

It seems theoretically possible that a shirt worn underneath a brown vest may absorb a sufficient amount of the allergenic dye to "contaminate" the wash water in which other perfectly harmless materials of underwear are washed at the same time, so that these originally harmless materials may in turn subsequently elicit an allergic reaction on the patient's skin. Since there are variations in the affinity of dyes to various types of clothing materials, one material may not be so "contaminated" as another material which tends to hold and accumulate the dye.

Summary

Two cases of contact dermatitis are presented. They improved during hospitalizations but relapsed immediately upon leaving the hospital or during visits at home. This should always direct the attention to allergens in the patient's home or in his clothes.

Careful observation of the outlines of these eruptions may give useful suggestions as to the cause of the eczematous dermatitis.



Fig. 1

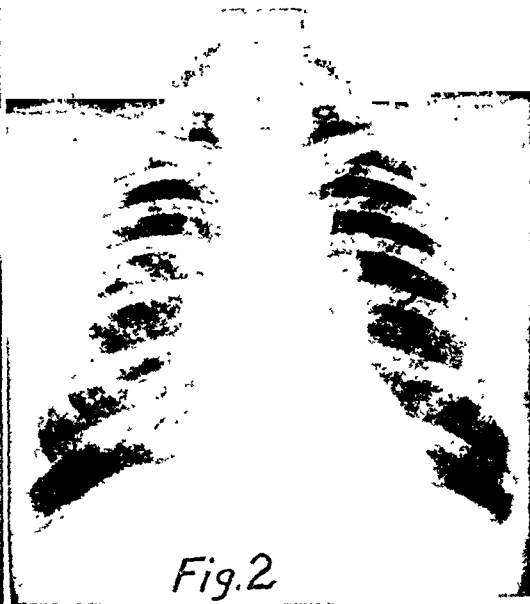


Fig. 2

fibronchoscopic examination was made on August 12. Most of the tracheobronchial tree was covered by a thin, grayish membrane, and a detached, thick, fibrinous coagulum was seen which almost filled the lumen of each main bronchus. The material was removed with the bronchial aspirator and a gauze swab. The patient experienced much relief following the removal of these casts, and for the first time in weeks he was able to lie down. Potassium iodide was given by mouth to aid expectoration, and because of the presence of staphylococci, sulfathiazole was also given. The temperature ranged between 102.4 F. and 100.2 F. for seven days, when it returned to normal and remained so. Although there was marked clinical improvement, the patient still continued to have a harsh cough, productive of similar fibrinous bronchial casts.

On September 23 the bronchoscopic examination was repeated. The mucosa of the trachea and right main bronchus, except for slight injection, appeared almost normal. The left main bronchus still contained a thick, easily removable, fibrinous deposit. Two days after this examination, the patient was discharged as improved and advised to return in two weeks for further examination. He came to the outpatient clinic on October 6 and reported a continued slight productive cough with occasional nocturnal dyspnea and wheeze. On bronchoscopic examination the only abnormality noted was a moderate degree of hyperemia of the mucosa of the left main bronchus. A roentgenogram (Fig. 2) taken at this time and compared with other serial films showed additional clearing of the abnormal shadows to nearly normal appearance.

Laboratory Data.—No tubercle bacilli were seen on three concentrate examinations of the sputum. Gram-positive cocci in pairs, small clusters, and short chains, as well as eosinophils, were seen. Urine was normal. Blood examination showed: hemoglobin, 118 per cent; red blood cells, 5,010,000;

white blood cells 22,400; polymorphonuclears, 63; lymphocytes, 13.5; mononuclears, 12.25; eosinophils, 8.75; basophils, 2.5; stabs, 4 per cent; and sedimentation rate, 87 (Westergren method).

Biopsy of the bronchial casts obtained at the first bronchoscopy showed a mass of purulent material with considerable necrosis of cells. There were many polymorphonuclear leukocytes and large mononuclear cells present. Epithelial cells were not identified. There was no evidence of tuberculosis nor was any elastic tissue present.

On October 13, approximately three months after the onset of the present illness, the patient returned to work. He experienced occasional wheezing, slight dyspnea, and a moderate cough productive of about one drachm of creamy, yellow sputum daily. On December 12, while working on a wiring job in a building under construction, the patient again inhaled sulfur dioxide in the fumes of coke which was being used to aid in the drying of cement. He was suddenly seized with a severe headache, chills, perspiration, nausea, vomiting, and a sense of constriction in the chest, followed by unconsciousness. The patient rested at home for a week and upon returning to work he developed another acute infection of the upper respiratory tract. This so aggravated his symptoms that he was obliged to return to the hospital on Christmas Day.

On examination, the chest appeared symmetric and expansion was equal on both sides. Tactile fremitus was increased over both bases and percussion was resonant and unimpaired. The breath sounds were bronchovesicular to vesicular over both lungs and inspiratory and expiratory squeaks were heard throughout. Palpable and audible rhonchi were noted, particularly over the left lung, and were more marked when the patient was lying on the left side. The remainder of the physical examination was within normal limits. The roentgenogram showed no striking abnormality and, except for a moderate leukocytosis, the laboratory examination

Case Report

ACUTE TRACHEOBRONCHITIS COMPLICATED BY BRONCHIAL STENOSIS FOLLOWING THE INHALATION OF SULFUR DIOXIDE

JOSEPH GORDON, M.D., Ray Brook, New York

HAGGARD¹ has pointed out that all respiratory irritants have the same toxicologic action. The difference in symptomatology is related to the location of their action and is dependent upon the relative solubility of the irritating gases. A gas that is very soluble in water is readily taken out of the inspired air by contact with the first moist tissue it reaches. Hence, the upper respiratory tract bears the brunt of action. A gas that has a low solubility in water is slower to liberate its irritant principle, and the main damage occurs deeper in the respiratory tract.

Winternitz² observed, from pathologic studies, that the action of irritating gases produces an inflammatory edema followed by a cellular exudate. Later, if death does not occur, there is organization of the exudate within the alveoli and bronchioles. Chronic suppurative lesions, such as bronchiectasis, result.

Sulfur dioxide is a highly irritating, irrespirable gas. Sulfurous acid is produced by contact of this gas with the moisture of the respiratory tract, and it rapidly oxidizes to sulfuric acid. As stated by von Oettinger,³ the main effect of sulfur dioxide is an irritation of the upper respiratory tract, but it may also cause lesions of the bronchi and lungs. Thompson⁴ reported that persons exposed to mild degrees of the gas complained of headache, anorexia, spasmodic cough, bronchitis, constriction of the chest, and gastrointestinal disorders. Asphyxia from acute catarrhal bronchitis, pulmonary edema, and even death may occur. As is the case with other poisonous, irrespirable gases, the lethal effects may be delayed. Death may ensue some days after what has been regarded as a trivial exposure.

TABLE 1.—PHYSIOLOGIC RESPONSE TO VARIOUS CONCENTRATIONS OF SULFUR DIOXIDE (Henderson and Haggard⁵)

	Parts of SO ₂ per million parts of air
Least detectable odor	3 to 5
Least amount causing immediate irritation to eyes	20
Least amount causing immediate irritation to throat	8 to 12
Least amount causing coughing	20
Maximum concentration allowable for prolonged exposure	10
Maximum concentration allowable for short exposures (1/2 to 1 hour)	50 to 100
Dangerous for even short exposures	400 to 500

McCord,⁶ in 1930, pointed out that sulfur dioxide

Read at a meeting of the Saranac Lake Medical Society, January 14, 1942.

From New York State Hospital, Ray Brook, New York.

was the most suitable refrigerant but that it was on top of the list as a respiratory irritant. However, he stated that no lasting harm following exposure was known to exist. Hamilton,⁷ on the other hand, mentions that the gas causes deleterious effects, both in human beings and in animals. Norris and Landis⁸ refer to one case in which death followed two weeks after an apparently slight exposure to this gas. Conditions such as asthma (Romanoff,⁹ Cooke,¹⁰ Dowling¹¹), bronchitis (Kehoe¹² *et al.*), and bronchiectasis (Smith and Needles¹³) have been attributed to sulfur dioxide poisoning.

Case Report

H. L., an electrical repairman, aged 44 and married, was admitted to the hospital on August 17, 1941, in acute respiratory distress. There was no history of any significant illness in the past. About five weeks before admission, the patient developed a mild infection of the upper respiratory tract which did not necessitate his stopping work. Before he had fully recovered, he uncoupled a joint in a pipe line leading to an old refrigerator furnished with sulfur dioxide gas. Some of the escaping gas was inhaled for several minutes before the proper connection was made. There followed immediately momentary mild irritation of the nose and throat. The incident was reported to his employer on the same day, July 12. Five days after this exposure, the patient was suddenly seized with a paroxysm of coughing associated with severe dyspnea. The expectoration of a small amount of tenacious, stringy sputum partially relieved the attack. The symptoms were not ameliorated by the administration of adrenalin. The paroxysmal attacks continued for days, with periods of relief following the expectoration of large "plugs" of heavy sputum. The severity of the symptoms suggested the presence of partial occlusion of the upper respiratory tract, and the patient was admitted to the hospital.

A short-statured, well-developed, and well-nourished white man, he was in urgent dyspnea, orthopneic, with a paroxysmal, productive cough. All the accessory muscles were active in the respiratory effort, but there was no cyanosis. The chest appeared symmetric, vocal fremitus was normal, and the percussion note was unimpaired. The breath sounds were moderately suppressed anteriorly and posteriorly over the upper third of both lungs and were compensatory below this level. Persistent subcrepitant rales were heard in the lower right axillary region and occasional sonorous rhonchi were heard at both bases posteriorly. The blood pressure was 130/90, and the remainder of the physical examination revealed no abnormalities.

The roentgenographic film (Fig. 1) showed radiating strands of increased density in the upper third of the right lung field and irregular, mottled shadows in the lower portion of this same field. There was slight peritruncal thickening in the left lung field.

When the patient's condition remained unchanged,

Honor Roll

Medical Society of the State of New York

Member Physicians in the Armed Forces Supplementary List

The following list is the seventh supplement to the Honor Roll published in the December 15, 1942, issue. Other supplements appeared in the January 1, January 15, February 15, March 1, March 15, and April 15 issues.—*Editor*

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was normal. A bronchoscopic examination was done on January 5, 1912. The trachea and right main bronchus appeared normal. There was slight hyperemia of the mucosa of the left main bronchus. The lumen was reduced to three-fourths its normal size and was somewhat triangular in outline. The stenosis was moderately elastic as the 7-mm. bronchoscope could just be passed through it with gentle pressure. The upper and lower lobe orifices thus visualized appeared normal. Under conservative therapy the patient's symptoms abated, and he was discharged, improved, on January 11.

Johnstone¹⁴ mentions sulfur dioxide as an industrial hazard in coke oven workers. The Bureau of Mines¹⁵ states that the fumes from burning coke under conditions of complete combustion are carbon dioxide and some sulfur dioxide (usually 0.6 to 0.8 per cent sulfur dioxide); with incomplete combustion carbon monoxide is produced.

Summary

The illness of the patient began with a mild infection of the upper respiratory tract, followed by exposure to sulfur dioxide gas, resulting in acute tracheobronchitis. Clinical improvement was obtained during the first admission with broncho-

scopic aid. Some months later, the patient again inhaled sulfur dioxide in the fumes of coke and the acute attack of tracheobronchitis that followed this exposure terminated in a partial stenosis of the left main bronchus.

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THE MICROBE'S SERENADE

A love-lorn microbe met by chance
At a swagger bacteroidal dance,
A proud bacillian belle, and she
Was first of the animalculeae.
Of organisms saccharine,
She was the protoplasmic queen;
The microscopical pride and pet
Of the biological smartest set.
And so this infinitesimal swain
Evolved a pleading low refrain:

"O, lovely metamorphic germ!
What futile scientific term
Can well describe your many charms?
Come to these embryonic arms!
Then hie away to my cellular home
And be my little diatom!"

His epithelium burned with love;
He swore by molecules above,
She'd be his own gregarious mate,
Or else he would disintegrate.
This amorous mite of a parasite
Pursued the germ, both day and night,
And 'neath her window often played
This Darwin-Huxley serenade—
He'd warble to her, ev'ry day,
This rhizopodial roundelay:

"O, most primordial type of spore!
I never met your like before;
And, though a microbe has no heart,
From you, sweet germ, I'll never part!
We'll sit beneath some fungus growth
'Till dissolution claims us both."

—*J. Med. Soc., Cape May Co., N. J.*

IF LATIN IS GREEK TO YOU

A surgeon is a busy man
Who never his job will shirk;
But an otolaryngologist
Is up to your neck in work.
A pediatrician treats the child;
His work seems awfully small;
While a physical therapist makes you work;
Which doesn't seem right at all.

The ophthalmologists work on eyes,
The windows of the soul;
So their job isn't pane-less;
Quite pane-ful, on the whole.
Psychiatrists are fond of nuts,
The human kind; and Freud.
The allergists tell what food and things
And people to avoid.

On obstetricians you depend
For they have to deliver.
The gastroenterologists
Will cure that stomach quiver;
And any cardiologist,
When effort makes you pant,
Can remedy the heartaches which
Our Beatrice Fairfax can't.

A phthysiologist works on lungs;
He surely knows the bellows.
The orthopaedists get the breaks.
Quite bracing are these fellows.
Each man must have his specialty
And of his prowess sing;
But the general practitioners
Must know the whole damn thing.

—In "From Bed to Verse," by John H. Hayes

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Yanelli, F. V.
Baldwin, N.Y.
Yaverbaum, A.
575 W. 189 St., N.Y.C.

Z

Zumpano, J. C.
3064 Bailey Ave., Bronx, N.Y.

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Scio, N.Y.
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Ryan, E. J.
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Ainsworth Road

Named for Major General Fred Crayton Ainsworth (1852-1943), of Vermont, the medical officer who devised the Army's system of personnel records and who became adjutant general of the Army.

Eustis Road

Named for Surgeon William Eustis (1753-1825), of Massachusetts, who served as a medical officer during the Revolution and became Secretary of War in President Jefferson's cabinet; member of Congress; Governor of Massachusetts.

McHenry Road

Named for Surgeon James McHenry (1753-1816), of Pennsylvania, who served as a medical officer during the Revolution and became Secretary of War in President Washington's and President Adams' cabinets; Member of Con-

gress; member of the convention which framed the Constitution of the United States.

Myer Road

Named for Brigadier General Albert James Myer (1828-1880) of New York, distinguished field surgeon and student of military communication systems; founder of the Signal Corps and first Chief Signal Officer of the Army; father of the Weather Bureau.

Winter General Hospital itself is named for the late Brigadier General Francis Anderson Winter, who was Surgeon of the Lines of Communication in France early in the first World War and later became senior American medical officer in Great Britain.

Physiotherapists Needed in Army Hospitals

WITH an average of almost 400 physiotherapy patients a day at Walter Reed General Hospital, the Army has found an urgent need for qualified physiotherapists. The present staff is composed of only 7 graduates, 9 apprentices, and 26 students. The Army will accept as students of physiotherapy women who hold college degrees in physical education and who possess the added qualities of patience, imagination, optimism, faith, and ingenuity.

Their work with war veterans is considered an

important aspect of the restoration of nerve functions, and since nerve injuries are more prevalent in this war than they were in the last, the demand for physiotherapists is naturally increased. By prescribing a course of skillfully graduated exercises, the physiotherapist teaches and encourages the patient to use what physical and intellectual powers are left to him.

Massage, exercise, and heat are the three essentials in the physiotherapist's treatment of war injuries.

Organize Emergency Medical Units

EMERGENCY units of physicians to aid in the care of civilian casualties and other patients who may be transferred from urban hospitals in critical defense areas to base hospitals in safe areas are being organized at the request of the Office of Civilian Defense and the U.S. Public Health Service.

The work of organization is being handled by selected hospitals and medical schools. These emergency units—which will be known as Affiliated

Hospital Units—may also be called upon to assist the Army in the event of military necessity.

Physicians selected will receive inactive commissions as reserve officers in the U.S. Public Health Service. Eligible physicians will be restricted to doctors who are 45 or over, women physicians, physicians of any age who are disqualified for Army duty, and physicians who have been classed as essential for civilian needs.

Improvements

The \$1,500,000 outpatient building at Kings County Hospital, dedicated in October, 1941, by Mayor LaGuardia, was opened for use on May 4.

Facilities in the new building are double those in the crowded clinic quarters on the first floor of the main hospital building. The clinic has been moved to the new building, according to Dr. Israel Magelner, medical superintendent, and accommodations for clinic patients are much better.*

Syracuse General Hospital, newly enlarged and improved, was formally dedicated on May 1.

Mayor Thomas E. Kennedy accepted the presentation of the hospital on behalf of the city. The board of trustees, the women's guild staff doctors, and executive members of the nursing staff attended the ceremonies, which were broadcast by Station WFBL. Delegations from other Syracuse hospitals crowded the small auditorium.

In praising members of the hospital staff who operated at full capacity during the period of construction, James D. Taylor, Jr., announced that the work had been done exclusively by Syracuse labor and in every possible instance, city-manufactured materials had been used.*

On May 3 Albany Hospital and the Junior League opened a nursery school for children of nurses, hospital employees, and men and women hospital volunteers at the Albany Home for Children. Miss Marion Case, director of the Child Care Center at School 6, is director of the new school.*

Jamestown General Hospital is to have new x-ray equipment, as the result of action taken by the Health and Hospital Board on April 29.

A control unit for venereal disease is to be established in the Pathological Dormitory Building of Bellevue Hospital in New York City, it was disclosed with the filing of plans for building alterations to accommodate the new center.

The control unit is part of the recently announced Federal-local cooperation in combating venereal infection and spread under wartime conditions.*

With a modernization program estimated to take three years to finish, the central buildings of Veter-

* Asterisk indicates that item is from local newspaper.

Hospital News

Employees Honored on Hospital Service Anniversary

ONE hundred employees who have been with the Associated Hospital Service of New York for five years or more were honored at a dinner given on May 7, the eighth anniversary of the founding of the hospital service plan. The dinner, at which AHS officers were hosts, was held at the Cafe Loyale. Louis H. Pink, president, presided.

Honored, in addition to the employees, were one executive officer and six members of the board of directors who have served at least five years. The officer was Frank Van Dyk, vice-president in charge of enrollment, who has been with the organization since April 15, 1935, and was the first executive director.

The board members were William C. Breed, Jr., attorney; the Rev. Joseph F. Brophy, director of the Health Division of Catholic Charities, Diocese of Brooklyn; Stanley Resor, president of J. Walter Thompson Co.; John F. Bush, executive director of Presbyterian Hospital; David H. McAlpin Pyle, attorney who for a number of years was president of the United Hospital Fund; and George E. Warren, vice-president of the Chase National Bank. The first three were among the incorporators of the non-profit hospital service plan.

The employees who were honored represent one-sixth of the present personnel. It was decided to

form a Five-Year Club, of which they became charter members and to which other employees will be admitted as they attain five years of service.

Twenty-one other employees are eligible for the Five-Year Club but could not be present at the dinner because they are serving with the armed forces.

They include Miss Gertrude Leff, a WAAC, and Capt. Joseph Dreyfuss, of the U.S. Army, who was one of the original employees. All are on leave from Associated Hospital Service.

Reminiscences brought out that the 5 employees with the longest service were Frank Hughes, who came to the organization as assistant to the director on April 29, 1935, and is now division bureau chief; Mrs. Berte Potassin Eckstein, who began with the addressograph department on May 6, 1935, and is now head of that department; Miss Jeannette Bevan, who started with the enrollment department on May 13, 1935, and is now supervisor of enrollment correspondence; Miss Rose Credendino, who was employed as a secretary May 20, 1935, and is now office manager of the Westchester branch at Mt. Vernon, and Miss Eleanor McIntyre, who was employed for general office work on May 27, 1935, and is now secretary to one of the executives.

Distinguished Medical Officers Honored at Winter General Hospital

WINTER General Hospital, U. S. Army hospital in Topeka, Kansas, has adopted the interesting plan of naming its important clinics, buildings, and streets for distinguished deceased medical officers of the Army who so far have never been honored by having their names given to buildings, general hospitals, or other entities of the Medical Department, U. S. Army.

The names are selected as appropriate for the particular clinic or building. The names of the streets are those of medical officers who have become the heads of other branches of the Army.

The following are the names so far selected:

The Waterhouse Medical Clinic

Named for Surgeon Benjamin Waterhouse (1754-1846), of Massachusetts, who introduced vaccination in America; first professor of medicine at Harvard.

The John Jones Surgical Clinic

Named for Surgeon John Jones (1729-1791), of New York, who wrote the first American medical book, founded the New York Hospital; first professor of Surgery at King's College, now Columbia University.

The Northington Roentgenological Clinic

Named for Colonel Eugene Garland Northington (1880-1933), of Alabama, pioneer student of military roentgenology; lost both arms and finally his life from malignancy due to exposure to the rays before their danger was known to science.

The Rodriguez Dental Clinic

Named for Major Fernando Emilio Rodriguez (1888-1932), of Puerto Rico, who made the first studies of the bacteriology of dental caries.

The Keen Neurosurgical Clinic

Named for Major William Williams Keen (1837-1932), of Pennsylvania, pioneer student—with his colleagues, Acting Assistant Surgeons Silas Weir Mitchell and George Reed Morehouse—of gunshot wounds of nerves; one of the

few medical officers who served in both the Civil War and the first World War.

The Rush Neuropsychiatric Clinic

Named for Surgeon General Benjamin Rush (1745-1813), of Pennsylvania, author of the first American book on insanity, the only systematic American treatise on the subject before 1833; signer of the Declaration of Independence; founder of the University of Pennsylvania.

The Shippen Clinic for Women

Named for Director General William Shippen, Jr. (1736-1808), of Pennsylvania, first teacher of obstetrics in America; first professor of surgery in America; founder of the University of Pennsylvania.

The Woodward Laboratory

Named for Lieutenant-Colonel Joseph Janvier Woodward (1833-1884), of Pennsylvania, pioneer in photomicrography; eminent anthropologist; president of the American Medical Association.

The Fletcher Medical Library

Named for Colonel Robert Fletcher (1823-1912), of the District of Columbia, first editor of the *Index Medicus*; eminent bibliographer and anthropologist.

The William Brown Pharmacy

Named for Physician General William Brown (1748-1792), of Virginia, author of the first American *Pharmacopeia*.

McGee Hall (Nurses Quarters)

Named for Contract Surgeon Anita Newcomb McGee, M.D., R.N. (1864-1940), of the District of Columbia, organizer of the Army Nurse Corps and leader in advancing the profession of nursing in America.

Boschen Hall (Enlisted Men's Recreation Building)

Named for Major General Frederick Wegener Boschen (1876-1942), of New York, hospital steward who became Chief of Finance of the United States Army.

Leonard Wood Road

Named for Major General Leonard Wood (1860-1927), of New Hampshire, who won the Medal of Honor for extreme gallantry as a medical officer, and who became Chief of Staff of the Army.

cian, and Dr. James L. Wilson to Associate Visiting Surgeon.

Goldwater Memorial Hospital has promoted Drs. Sidney Cohen and Shepard Shapiro to the rank of Associate Visiting Physician.

Dr. Albert H. Garvin was unanimously elected president of the Buffalo and Erie County Tuberculosis Association on May 5.*

Dr. Walter E. Lawrence has been appointed assistant physician to Dr. James M. Blake at Glenridge Sanitarium, in Schenectady. He succeeds Dr. Edmond A. Suss, recently appointed physician in charge of Homestead Sanitarium, Middle Grove.*

Mrs. Amelia C. Richards, of Sleepy Hollow Manor, former superintendent of Tarrytown Hospital, has been appointed superintendent of Ossining Hospital.

Mrs. Richards succeeds Mrs. Grace Woods, who left in April to fill a mission for the American Red Cross.*

Dr. John E. Free, of Ogdensburg, has been appointed chief operating surgeon at the A. Barton Hepburn Hospital in Ogdensburg.

Dr. Free succeeds Dr. Grant C. Madill, also of Ogdensburg, who died on March 20. He has been practicing in the city since 1920 and has performed many operations at the Hepburn Hospital.*

Newsy Notes

Impelled by the interest of their wives and daughters in hospital work, increasing numbers of public-spirited men are following suit and volunteering their services. "If the women can do it, why can't we?" is an argument with which no hospital administrator will take issue; instead, he will proceed to find logical places for such willing hands.

A recent check-up reveals training programs for amateur orderlies, comprising ten or fifteen hours during which the registrant is instructed in moving patients to and from the operating room and in certain simple procedures in bedside care, including the setting up of Balkan frames. In addition, public-spirited citizens are running elevators, driving ambulances, performing clerical and other administrative duties, and even acting as watchmen. One institution boasts an architect, a lawyer, and a banker among its most loyal workers, and a community interest so great that several industrial concerns are granting time off during the day to younger executives who are willing to give their services.

What greater assurance can the harassed hospital administrator have than the knowledge that the public recognizes the urgency of the situation and is ready to roll up its sleeves to help! It makes even the problems of volunteer training and management seem small in comparison.—*The Modern Hospital*

Pianos are needed in New York City hospitals for work in musical therapy, according to Harriet Ayer Seymour, director of the National Foundation of Musical Therapy.*

Many hospital services in Brooklyn would have to be discontinued if it were not for the help of the Red Cross Nurses' Aide Corps, according to Dr. John J. Gainey, president of the Medical Society of the County of Kings. Dr. Gainey, in a recent statement, called the service "invaluable." He said: "The hospitals of Brooklyn have found that the Nurses' Aides are rendering an invaluable service. We find that these volunteers, when properly trained, are of great assistance to both the nurses and the doctors in the wards and clinics of the hospitals."

Mrs. Carroll J. Dickson, Brooklyn chairman of Red Cross Nurses' Aides, said Nurses' Aides make beds, bathe patients, assist in the supply room and utility room, prepare trays, feed patients, and do a great many things for their comfort which it would be impossible for the trained nurses to do.

Qualified women citizens over 18 years of age with a high-school education or its equivalent may register for this work.*

The medical board of Morrisania City Hospital and numerous friends held a testimonial dinner and dance at the Concourse Plaza Hotel on May 15 in honor of Dr. Julius Lewis Amster, in recognition of his services as president of the medical board and visiting surgeon and to mark his recent elevation to the position of honorary consulting surgeon. The proceeds of the dinner are to be used as an endowment of the J. Lewis Amster Library of the Morrisania Hospital.

New York Hospital, the first hospital established in New York and the second in America, has issued an appeal for men volunteers to serve as orderlies for three hours two nights a week. After training, the volunteers would perform for male patients tasks comparable with those of the women nurses' aides.

At present, New York Hospital has 10 men attending classes and serving as orderlies two nights a week and 5 other volunteers, 2 in the pharmacy department, 2 in the x-ray department, and one in the personnel department.

The appeal is addressed to business and professional men who have been deferred in the draft because of age, dependency, or physical disability. The men serving at present report to the hospital at 6:00 P.M. on Mondays and Wednesdays, attend a class conducted by the head orderly for the first hour, and then go on duty from 7:00 P.M. to 9:00 P.M. under the supervision of a professional orderly.*

A central school of nursing for Staten Island, directed and operated by Wagner College, with the

ans Hospital in Castle Point will undergo a complete transformation. The governmental appropriation has been received and work has already been started on this extensive project, the largest since the hospital was completed in 1924.

There will be two separate and distinct construction programs. One of these consists of the waterproofing and refinishing of the outside of the buildings, roofs, and other exposed portions of the structures, as well as the plastering and painting of the buildings and other work.

The second program, an extensive project in itself, will include the modernization of the two large, main buildings. The work will consist of interior reconstruction of the buildings and a re-allocation of space, with an approximate increase of 122 beds. The present official capacity of the hospital is 479, and the emergency capacity is 517 patients. On the basis of the normal capacity, an increase of 122 beds would be practically an increase of 25 per cent, making a total capacity, when the improvements are finished, of about 600 beds.

When the changes in the wards are completed, there will be many more private rooms and less ward space. More semiprivate rooms will be provided.*

. . .

The surgical equipment and medical equipment of the late Dr. Grant C. Madill, Ogdensburg physician and surgeon, have been left to the A. Barton Hepburn Hospital in Ogdensburg, where he practiced for over a half century.*

At the Helm

Joseph Freeman, for many years actively identified with Brooklyn philanthropies, has been re-elected for a second term as president of the Jewish Sanitarium and Hospital for Chronic Diseases.

Prior to his election last year as president of the institution, Mr. Freeman served as chairman of both the executive board and the medical lay committee.

Other officers re-elected were Abraham S. Singer, honorary president; Isaac Albert Jacob Ponemone, Mrs. Max Blumberg, Max Finkelson, David Serota, and Murray Rosenbloom, vice-presidents; Andrew N. Miller, treasurer; Ethel Nagel, secretary; Henrietta Klein, recording secretary; Bernard Lebovitz, executive director; Lt. Morrell Goldberg, on leave with the Army, superintendent; Mrs. Minnie Tulipan, director of social service; and Harry Meyerowitz, chairman of the board.*

. . .

E. Roland Harriman has been named permanent chairman of the Red Cross Greater New York Camp and Hospital Council, which will unify Red Cross units serving camps and hospitals within the area.

The purpose of such councils is to seek, through cooperation of the Red Cross units in the vicinity, to give the maximum service to soldiers and sailors in camps and hospitals. The new one is the twenty-fourth in the North Atlantic area, and brings to 136 the number of such councils in the country.

The chapters of the Red Cross embraced within the council of the New York area are those of New York, Brooklyn, the Central Chapter of Queens, North Shore, and Staten Island. At council meetings each chapter will be represented by two delegates and an alternate.

. . .

Work has been started on a two-story and basement annex to Memorial Hospital in Niagara Falls, which will provide accommodations for beds for 100 additional patients and bring the hospital's capacity to 262 beds. The Federal Works Agency granted \$296,753 for the full cost of the addition.

The annex will be of brick exterior, with wood floors and roof.

FWA Regional Director John M. Gallagher said that the building will be leased to the Memorial Hospital Association for the duration of the war and a short time thereafter.

The project was certified as to need by the U.S. Public Health Service because of increased industrial population in the Niagara Falls area.*

. . .

The A.W.V.S. has given a completely furnished ambulance to Mother Cabrini Hospital in New York City.*

. . .

Plans have been drawn by hospital officials for a new fireproof wing to increase considerably the capacity of St. Jerome's Hospital in Batavia. A campaign will be conducted early next fall for funds with which to build.*

. . .

Dr. G. O. Gardner has been elected medical director of Utica Memorial Hospital to succeed Dr. Harold C. Lyman, who recently resigned because of ill health after serving about ten years in that position.

Dr. Ina C. Hall, of Richmond, Virginia, succeeded Miss Katherine Jones as superintendent of the Brooks Hospital in Dunkirk on April 15. Miss Jones recently announced her intention to retire after seventeen years' service as superintendent.

The new superintendent is a graduate of the Wheeling Hospital school for nurses at Wheeling, West Virginia. She received her bachelor of science degree in nursing at West Virginia University and won her doctor of medicine degree at the Medical College of Virginia in 1938. She then took her Master of Arts degree in hospital administration at the University of Chicago and served her administrative internship at Wisconsin General Hospital at the University of Wisconsin.

Dr. Hall served as instructor in anatomy and histology at West Virginia University Medical School and for three years was assistant director of the Medical College of Virginia, hospital division.

Dr. Hall is a member of Alpha Epsilon Iota Medical Society.*

. . .

Dr. John H. Sheldon was elected president of the Glens Falls Hospital staff at the annual meeting in the hospital on May 4. Other officers elected are Dr. B. C. Tillotson, vice-president, and Dr. W. W. Bowen, secretary-treasurer.

. . .

Harlem Hospital has announced the promotion of Dr. Cyril H. Dolly to Associate Visiting Physi-

Medical News

President's Address*

Annual Meeting—Medical Society of the State of New York

G. W. CORTIS, M.D., Jamestown, New York

IT SPEAKS well for our profession that at a time when every doctor is overworked so many are willing to take time to attend this meeting in order to keep informed. We can well be proud of our part in the war effort. I feel safe in saying that there are few men in this audience not in uniform who are not barred from military service by reason of age, physical handicaps, or indispensability. In spite of the fact that our armed forces require the services of practically all physically fit doctors of military age, no draft has been necessary to fill our quota.

Our people are told in newspapers and over the radio of Americans fighting on land and sea, but they are seldom reminded that Army or Navy doctors are under fire wherever our troops fight—in the jungles of Guadalcanal, the mountains and deserts of Africa, and on every warship that is sent to the bottom of the sea. Yes, and on ambulance planes in the air. It is necessary that we kill the enemy, but it is also necessary that we save the lives of our own wounded men. That requires more than courage. It requires coolness, devotion, and skill. At Pearl Harbor, in spite of frightful burns and the shattering wounds of high explosives, 96 per cent of the wounded were saved. Of 4,000 wounded in the southwest Pacific, the Navy reported that only 7 died.

These things need to be said. They give us faith in ourselves and in our ideals. In the years just ahead we shall need all of that faith, not only because we are in a war for survival, not because that war will be long and hard, but because of what will happen after the war is ended.

Nobody can forecast the duration of the war, but the statesmen of all the Allied Nations are already planning for the postwar reconstruction. Hundreds of committees in this country are preparing plans. Medical care is at or near the top of the agenda of every conference dealing with postwar problems.

It is not the war alone that makes this necessary. The past decade has been one of great social upheaval. All the peoples of the world have been moving toward a new way of life. Society as we have known it is already a thing of the past. It will be replaced by what is in the making today. Call it what you will—the New Order, the Wave of the Future, or the New Deal. The name means nothing; the fact means everything.

As a profession we are interested in all programs dealing with public health and medical care. Our interest is selfish in so far as it is concerned with the defense of our independence of action and the maintenance of our ideals of service. But transcending all selfish thoughts is our sense of duty. Knowledge brings more than power; it imposes responsibility. If we shirk that responsibility and do not contribute the full measure of our understanding to the solution of the great problem of health, we shall have no

reason to complain if a new system of medical care is imposed upon us from without.

In my annual report I recommended to the House of Delegates that a permanent committee be set up to study all questions concerning the relation of medicine to society and to prepare our own blueprints for the future. Even before that report had been published such a resolution was prepared and ready for submission to the House of Delegates. Its passage by the House yesterday is proof that the Medical Society of the State of New York is prepared to accept the challenge of the times. It has taken the first step. Now I would like to suggest what I believe should come next.

A few weeks ago I talked with a wise man who for years has been studying at first hand the medical situation in practically every country on the globe. He approved of our setting up a committee to prepare plans for the future, but he said, "Your view is too limited. You think in terms of organized medicine, forgetting that it is only one of many organs involved in maintaining the health of the social body. Like the liver, it is the largest and has the greatest number of cells. By comparison the parathyroids and the pituitary in size and in the number of cells are relatively insignificant; but they also are essential to health."

He was right. In our thinking we have been isolationists, blind to the importance of other agencies which operate in the broad field of health. I know that some men are already thinking of a super-council which would bring together the knowledge and experience of all the important agencies having to do with our problems. The National Research Council might serve as a model.

In such a council men could fit together the parts of the jigsaw puzzle of medical care. To the puzzle each would bring the pieces which represent his special field. But to form a complete picture, with no piece missing, every important agency dealing with matters of health must be represented. Each of them has an interest in the great problem that we are too likely to consider exclusively our own. Each has something important to contribute and each would benefit by the knowledge and experience of the others. In no other way could conflicting interests be so well reconciled, and in no other way can an all-inclusive plan be made.

What agencies should be represented on such a council? Opinions will probably differ, but in order to emphasize the diversity of interests involved I would tentatively propose the following:

1. The American Medical Association. I place it first not only because it is the largest, but because its activities overlap those of most of the others. It is like a huge ganglion cell whose dendrites reach out and make contact with those of all the others.

2. The American College of Surgeons. The work done by the College in raising the standards of surgical practice and of our hospitals would certainly entitle it to representation.

3. The American Hospital Association. The hospitals of this country have had a phenomenal growth not only in numbers and in patient capacity, but in the complexity

* Delivered at the 137th Annual Meeting of the Medical Society of the State of New York, Buffalo, May 4, 1943

cooperation of Staten Island Hospital and Richmond Memorial Hospital, two private voluntary hospitals of Richmond Borough, has been approved by the directors of all three institutions. First classes will open July 1, according to an announcement by Dr. Clarence C. Stoughton, president of the college.

Students will not only train to receive their license from the state as professional nurses, but also opportunity is provided by which they may return to the college campus for a fourth year and earn a bachelor of science degree.

The program represents a sharp change in nursing education. Stimulated both by federal and state authorities, it marks a departure from the program of having such education centered in hospitals. All of the purely theoretic training in the sciences and nursing arts will be given on the Wagner campus. The practical work will be carried on in the hospitals' wards, under the direction of the college, and student nurses will be sent to all participating hospitals, instead of to just one.

Under the new program, as outlined for the Wagner College, school students will spend their first eight or nine months on the college campus and the next two years in the hospitals. At the end of this time they will take their state examinations and, if successful, be given their certificates as registered professional nurses. If they then elect to do so, they may return to the college for a fourth year and receive their bachelor of science degree also.

The new college-centered school has the approval of the State Department of Nursing and the New York State Nursing Council for War Service.

Two other such community schools have been established under state approval: one at Adelphi College in Garden City and one at Keuka College, near Penn Yan.—*Better Times*

• • •

Lydenham Hospital in New York City celebrated its fifty-first anniversary in April. More than

\$15,000 was raised for the institution at a dinner-dance held at the Waldorf-Astoria Hotel.

• • •

Guaranteeing their patients an ample supply of food for the summer and fall, two more hospitals have made plans for extensive victory gardens. The Long Beach Hospital, in Long Beach, will use all its available space for a garden and will provide a means of canning and preserving the surplus for the winter.

The Westchester Division of the New York Hospital, in White Plains, has had 40 acres plowed up and has added a new team of horses for farm work. Allowing 20 acres for potatoes, 10 for corn, and 10 for assorted vegetables, directors of the institution hope to raise enough produce for summer, fall, and part of the winter.

An extra 10 acres will be set aside for garden plots for hospital employees.

• • •

The adjustment of the tuberculous patient under wartime conditions, from the standpoint of rehabilitation, nutrition, education, family dislocations, and the like, was the subject of discussion at the meeting of the Nursing and Social Service Section of the Tuberculosis Sanatorium Conference of Metropolitan New York held Monday, May 24, at 8:15 P.M. in the Einhorn Auditorium of Lenox Hill Hospital. Miss Bosse B. Randle, R.N., director, Division of Public Health Nursing, Nassau County Department of Health, presided.

Dr. I. D. Bobrowitz, Medical Superintendent of the Municipal Sanatorium, Otisville, was moderator. Other participants in the discussion were: Miss Muriel E. Anness, R.N., county nurse, Nassau County Department of Health; Mr. Kenneth W. Hamilton, supervisor, New York State Bureau of Vocational Rehabilitation; Miss Martha Howard, R.N., induction nurse, 113th Infantry Armory, Newark, New Jersey; and Miss Marie V. Krause, director, nutrition clinic, New York Hospital.

TUBERCULOSIS COMMITTEE TO MEET

"Wartime Citizen Service for Public Health" is the theme of the Annual Meeting of the State Committee on Tuberculosis and Public Health, which will be held on June 2 and 3 at the Commodore Hotel in New York City.

The meeting will open on June 2 with a presentation of wartime citizen services by city and county tuberculosis and health associations in three simultaneous round-table meetings, made up according to population of their areas. This program will be continued in the afternoon, ending in a joint session of the three groups.

The schedule for June 3 includes a symposium on the influences of war emergency, favorable or unfavorable, on the eradication of tuberculosis. The annual business meeting of the State Committee will be held that afternoon.

MEDICAL SLANG

There is not sufficient distinction in the medical mind between the spoken and the written word. Certain medical slang is highly descriptive and emotionally and intellectually suited to the purpose of professional discussion; when, however, such idiom is transferred to print it produces a different effect. There are too many examples of words and phrases incorporated and accepted into the medical press which offend against rules of style and grammar. Textbooks on "the acute abdomen" are numerous: disease may be acute, but an abdomen, never. Exactness and dignity are the two essential qualities of good medical expression. The surgeon who "laparotomises" his patient and the physician who diagnoses "P.T.B." achieve neither.—*The Decay of Medical Language*, editorial in the *New Zealand M. J.*

Medicine and the Changing Order

A COMMITTEE to Study Medicine and the Changing Order has been organized by the New York Academy of Medicine. The objectives of this committee are defined as follows:

"To be informed on the nature, quality, and direction of the economic and social changes that are taking place now and that are clearly forecast for the immediate future; to define in particular how these changes are likely to affect medicine in its various aspects; to determine how the best elements in the science of medicine and its services to the public may be preserved and embodied in whatever changed social order may ultimately develop."

The Committee plans to survey the changes that are currently taking place in our economic and social organization and to consider also any changes which are likely to take place during the next decade. In this survey the Committee will solicit information and opinion from a wide variety of groups, including sociologists, economists, representatives of organized labor, industrialists, bankers, and politicians.

Every shade of political and economic thought is to be represented.

Also, in this connection, the Committee will solicit the cooperation of all those intimately connected with medicine, for the work will be devoted primarily to the study of how, within the changing social order, the best qualities in medical service, in medical education, and in medical research can be preserved and developed. It is expected that the study will continue until such time as sufficient evidence has been accumulated to make possible a considered report.

Members of the Committee are: Dr. Malcolm Goodridge, *Chairman*; Dr. Arthur F. Chace, Dr. James Alexander Miller, Dr. Alan Gregg, Dr. George Baehr, Dr. Harry Aranow, Dr. I. Ogden Woodruff, Dr. Paul Reznikoff, Dr. Henry W. Cave, Dr. Tracy J. Putnam, Dr. Wilson G. Smillie, Dr. Jean A. Curran, Dr. Herbert B. Wilcox, Dr. Howard Craig, Dr. E. Tolstoi, Dr. E. H. Pool, Dr. Robert Pound, and Dr. Iago Galdston, *Secretary*. Committee associates are Mr. John W. Davis and Mr. W. S. Gifford.

County News

Albany County

Albany celebrated Mother's Day proudly this year, with its remarkable record of only one maternal death in 1942 when 3,560 babies were born in the city.

This was achieved in a year when the birth rate increased approximately 600 over the 1941 total, when enrollment of physicians for military service left only seven obstetricians in the city, and when hospital facilities were curtailed sharply by a war-time shortage of nurses and maintenance employees. There were 12 maternal deaths in 1941.

The drop in the maternal mortality rate is the outcome of a decade of missionary work, begun by the Maternal Welfare Committee of the Albany County Medical Society, to educate the public on the importance of adequate prenatal and postpartum care.*

Bronx County

Adolph J. Chesley, Bronx Rationing Administrator, announced, following a conference with an advisory council of the Bronx Medical Society, that Bronx physicians will assist in working out a schedule to be used in connection with special rationing cases in which diabetics and other sick persons may require special consideration.

Patients will be granted special allotments on presentation of applications accompanied by a physician's statement which will give the reason why certain foods are needed and the amount needed.

The advisory physicians are Dr. Frederick Williams, Dr. Edward C. Podvin, Dr. Philip Eichler, Dr. Samuel Gitlow, and Dr. William A. Roberts.*

On April 7 Dr. Henry Roth celebrated his fiftieth year in the practice of medicine. Over 300 colleagues and friends attended a dinner given in his honor at the Concourse Plaza Hotel.

Broome County

The May meeting of the county society was held in Binghamton State Hospital on May 11.

Dr. Ulysses Schutzer spoke on "Electroshock Therapy in Mental Illness—Demonstration of Technic."

A Doctor's Emergency Fund has been established, and voluntary contributions will be accepted by the treasurer or at the office of the county society in the Medical Library at City Hospital in Binghamton.

A program to provide persons who are ill with additional food or special foods to meet medical and dietary requirements has been developed by the Eastern Broome County War Price and Rationing Board and the Broome County Medical Society.*

Chautauqua County

The Jamestown Medical Society held its monthly meeting at the Hotel Jamestown on April 22. Following a dinner, the regular business meeting was held, Dr. Hilding A. Nelson, presiding. Dr. Clayton W. Greene, of Buffalo, read a paper on "Differential Diagnosis of Kidney Lesions."*

A nine-point program through which medical service to patients in Jamestown and vicinity can be facilitated has been outlined by a committee of the Jamestown Medical Society in a letter to the *Jamestown Post-Journal*. Need for cooperation is indicated by the statement that "One-half of the most active doctors in Jamestown are now in the Army or Navy."

The Medical Society appointed its committee to study the problem after a communication from the Central Labor Council called attention to difficulty in certain cases of securing a doctor at night.

Here is the reply of the medical society committee:

Editor, Post-Journal
Jamestown, New York

Dear Sir:

A recent communication from the Central Labor Council to the Hospital Board called attention to the difficulty which

* Asterisk indicates item is from local newspaper.

of their functions. In the education of nurses and the training of interns they are a vital part of medical education. Cancer clinics, social service, laboratories, and dispensary service are of great value to the community. Among their many problems are the hospitalization of the families of men in service, workmen's compensation cases, and the charge that they are practicing medicine, especially in connection with hospital insurance. They are the medical centers of all communities.

4. The United States Public Health Service is pre-eminent in the fields of epidemiology, sanitation, nutrition, and venereal diseases. In the framing of any national health program, the experience of this group would obviously be indispensable.

5. The American Public Health Association would bring firsthand knowledge of conditions and needs in the states and territories in relation to the local administration of public health.

6. The medical services of the Army and Navy and the Veteran's Administration will, after the war, represent a very large proportion of the medical profession, and they will be responsible for the medical care of a vast number of veterans and their dependents. If the vote-getting policy of Congress since the last war is any criterion, the number of persons to be served by the Veteran's Administration will be increasing for at least one generation. Representation of these three organizations cannot be omitted.

7. Medical Schools. Whether we flatter ourselves that the A.M.A. is the liver or the brain of our medico-social organism, the medical schools are the gonads since upon them we depend for the perpetuation of medical science. Their curricula must conform to the demands of the new order. They would bring to the conference the viewpoint of educators and they would take away information vital to their own success. Even the pre-medical schools might well be represented because they lay the foundations upon which the medical schools must build.

8. State and National Boards of Licensure. We are too likely to overlook the importance of these bodies. Medical licensure is an outstanding example of the Balkanization of our country. There is no uniformity and little reciprocity between the states. Some accept the certificate of the National Board of Medical Examiners, some do not. The standards run the gamut from very high to very low. The varying requirements are proving

a serious obstacle to the placement of foreign physicians who are now concentrated in our own state. They will in like manner interfere with the dispersement of medical officers after postwar demobilization. So far as I know, no state legislation protects the public against unqualified specialists. Under the new order it is to be hoped that this shameful condition will be corrected by the requirement of licensure over and above that required for general practice.

9. Foundations. We owe a great debt to the many foundations that have financed medical research. It would seem wise to have at least one member of the council to represent these great humanitarian agencies. In spite of their contributions to scientific medicine, some of them are regarded with suspicion as being proponents of socialized medicine. If the suspicion is justified, the best corrective would be contact with the other members of the council. They could bring much of value to us and they could take away much of value to themselves.

Some of these groups have interests and knowledge more or less foreign to those of practicing physicians and yet they constitute an important part of the environment in which we live. Life has been defined as adaptation to one's external relations. To adjust ourselves to this environment we must understand it. Failure of any free organism to adapt itself to the medium in which it lives leads to one of two alternatives: death or parasitism. Medicine will not die, but it could become a parasite of government. That is one reason for our participation in the work of the proposed Council on Health.

There is another argument for the consultative union of the agencies which I have mentioned. Each of them has authority in its own field. Their combined power and influence, if they agreed on a national program, would be great enough to counteract any attempt on the part of a government bureaucracy to seize control. It would be the surest safeguard against the danger of the kind of state medicine that we oppose. I believe that it is worthy of your consideration.

International College of Surgeons to Meet June 14-16

AT THE fourth International Assembly of the International College of Surgeons to be held at the Waldorf-Astoria Hotel in New York City on June 14, 15, and 16 dealing with the subjects of "Rehabilitation" and "War Surgery," the tentative program arrangements will be as follows: (1) papers will be read by eminent authorities in the Grand Ballroom during both morning and afternoon sessions, and (2) continuous roundtable discussions on rehabilitation, war surgery, care of veterans, and allied subjects have been scheduled to run for the duration of the Assembly.

The many distinguished visitors who are expected will include: Admiral Percy Noble, British Admiralty Delegation; Surgeon General R. T. McIntire, Rear Admiral, Medical Corps, U.S. Navy; and Surgeon General Thomas J. Magee, Medical Corps, U.S. Army, who will all be present if their appointments permit.

Visitors to the Assembly are urged to see the many exhibits which will be set up to demonstrate activities in military medical affairs and rehabilitation. Among these will be a visual demonstration on the work of the State of New Jersey Rehabilita-

tion Commission, John J. Toohey, Jr., Director, presenting its Curative Workshop under the personal direction of Mr. J. C. Kupper.

The Veterans Administration, Washington, D.C., of which Charles M. Griffith is Medical Director, will furnish charts showing pictures and descriptions of the routine and special measures in bibliotherapy, occupational therapy, and physical therapy used to aid in the treatment of patients in Veterans Administration Hospitals.

The Medical Detachment of the 17th Regiment, New York State Guard, of which Major Donald R. Beck is Regimental Surgeon, will set up a regimental aid station. The personnel will consist of members of the medical detachment who will be in daily attendance.

There will also be an exhibit by the New York State Department of Social Welfare, Bureau of Services for the Blind, with Ruth B. McCoy in charge.

A large number of motion pictures in color will be shown on craniocerebral surgery, bone and joint surgery, plastic surgery, and war surgery. The medical profession is cordially invited to attend.

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Every shade of political and economic thought is to be represented.

Also, in this connection, the Committee will solicit the cooperation of all those intimately connected with medicine, for the work will be devoted primarily to the study of how, within the changing social order, the best qualities in medical service, in medical education, and in medical research can be preserved and developed. It is expected that the study will continue until such time as sufficient evidence has been accumulated to make possible a considered report.

Members of the Committee are: Dr. Malcolm Goodridge, *Chairman*; Dr. Arthur F. Chace, Dr. James Alexander Miller, Dr. Alan Gregg, Dr. George Baehr, Dr. Harry Aranow, Dr. I. Ogden Woodruff, Dr. Paul Reznikoff, Dr. Henry W. Cave, Dr. Tracy J. Putnam, Dr. Wilson G. Smillie, Dr. Jean A. Curran, Dr. Herbert B. Wilcox, Dr. Howard Craig, Dr. E. Tolstoi, Dr. E. H. Pool, Dr. Robert Pound, and Dr. Iago Galdston, *Secretary*. Committee associates are Mr. John W. Davis and Mr. W. S. Gifford.

County News

Albany County

Albany celebrated Mother's Day proudly this year, with its remarkable record of only one maternal death in 1942 when 3,560 babies were born in the city.

This was achieved in a year when the birth rate increased approximately 600 over the 1941 total, when enrollment of physicians for military service left only seven obstetricians in the city, and when hospital facilities were curtailed sharply by a wartime shortage of nurses and maintenance employees. There were 12 maternal deaths in 1941.

The drop in the maternal mortality rate is the outcome of a decade of missionary work, begun by the Maternal Welfare Committee of the Albany County Medical Society, to educate the public on the importance of adequate prenatal and postpartum care.*

Bronx County

Adolph J. Chesley, Bronx Rationing Administrator, announced, following a conference with an advisory council of the Bronx Medical Society, that Bronx physicians will assist in working out a schedule to be used in connection with special rationing cases in which diabetics and other sick persons may require special consideration.

Patients will be granted special allotments on presentation of applications accompanied by a physician's statement which will give the reason why certain foods are needed and the amount needed.

The advisory physicians are Dr. Frederick Williams, Dr. Edward C. Podvin, Dr. Philip Eichler, Dr. Samuel Gitlow, and Dr. William A. Roberts.*

On April 7 Dr. Henry Roth celebrated his fiftieth year in the practice of medicine. Over 300 colleagues and friends attended a dinner given in his honor at the Concourse Plaza Hotel.

Broome County

The May meeting of the county society was held in Binghamton State Hospital on May 11.

* Asterisk indicates item is from local newspaper.

Dr. Ulysses Schutzer spoke on "Electroshock Therapy in Mental Illness—Demonstration of Technic."

. . .

A Doctor's Emergency Fund has been established, and voluntary contributions will be accepted by the treasurer or at the office of the county society in the Medical Library at City Hospital in Binghamton.

. . .

A program to provide persons who are ill with additional food or special foods to meet medical and dietary requirements has been developed by the Eastern Broome County War Price and Rationing Board and the Broome County Medical Society.*

Chautauqua County

The Jamestown Medical Society held its monthly meeting at the Hotel Jamestown on April 22. Following a dinner, the regular business meeting was held, Dr. Hilding A. Nelson, presiding. Dr. Clayton W. Greene, of Buffalo, read a paper on "Differential Diagnosis of Kidney Lesions."*

. . .

A nine-point program through which medical service to patients in Jamestown and vicinity can be facilitated has been outlined by a committee of the Jamestown Medical Society in a letter to the *Jamestown Post-Journal*. Need for cooperation is indicated by the statement that "One-half of the most active doctors in Jamestown are now in the Army or Navy."

The Medical Society appointed its committee to study the problem after a communication from the Central Labor Council called attention to difficulty in certain cases of securing a doctor at night.

Here is the reply of the medical society committee:

Editor, *Post-Journal*
Jamestown, New York

Dear Sir:

A recent communication from the Central Labor Council to the Hospital Board called attention to the difficulty which

some people have had in securing a doctor at night. At the regular monthly meeting of the Jamestown Medical Society on March 25 a committee was appointed to study this problem and advise the public.

It is important that the people in this vicinity be aware of the difficulties in order that they shall be willing to cooperate in the matter. Before making specific recommendations the committee believes it wise to clarify the situation.

One-half of the most active doctors in Jamestown are now in the Army or Navy. Of those remaining two are full-time health officers, two are x-ray specialists, one is a pathologist, and six are specialists whose practice does not include general medicine or surgery. Furthermore, of the twenty-eight men who do general practice in medicine or surgery, eight are between the ages of sixty and seventy-one.

In addition to rendering service to the people of Jamestown, Falconer, Colon, Lakewood, and the adjacent territory these men give much time without compensation to the examination of draftees, Civilian Defense work, and free clinics. Practically all of our doctors are working from twelve to sixteen hours a day including Sundays and holidays and they have no regular hours for sleep. We cite these facts not in any spirit of self pity but in order to impress the public with the necessity for cooperation in our effort to render necessary service.

In time of war your doctor must ration his time among the patients in his community. Your consideration in the use of his services is earnestly requested. The Office of War Information says: "Luxury medicine, to which some Americans have become accustomed, is out for the duration." You can help very greatly by keeping in mind the following advice:

1. Whenever possible come to the doctor's office instead of calling him to your home.
2. Call for an appointment early in the morning so that he may schedule his calls more efficiently.
3. Do not ask for a night call unless it is absolutely necessary. In case of children, parents naturally become alarmed during the night. If a child becomes ill during the day, do not neglect to consult your physician early. Telephone advice will often make a house call unnecessary.
4. Use the classified directory in the back of your telephone book. The new directory will contain the names of all physicians remaining on May 1. Do not leave a call for more than one physician. It is unfair to have a physician hurry to your home only to find that some other doctor is already there.
5. Be sure that you call the residence and not the office during the night.
6. It is advisable to have a family doctor upon whom you can depend in case of need.
7. If you are unable to secure the doctor of your choice, do not call the Police Station. Call one of the hospitals and explain the nature of the illness or accident. The night superintendent will then be better able to secure a doctor who will best meet the requirements of your particular case. If you will first try to call a physician and if unable to find one, will call the hospital, we believe that the difficulty will be alleviated so far as it is humanly possible to do so.
8. Have an examination at the first sign of sickness rather than risk a serious illness.
9. Keep your family and yourself in good health and be immunized against all possible contagious diseases.

We wish to emphasize that in general the cooperation of the public has been most gratifying and this spirit is becoming more prevalent all the time. Those who are unreasonable in their demands on the profession are a very small minority and we trust that this communication may result in the elimination of these few exceptions.

Yours very truly,

G. W. CORTIS, M.D.
C. O. LINDBECK, M.D.
E. J. KELLEY, JR., M.D.
Committee of Jamestown Medical Society*

Monroe County

The Civic Medal, awarded annually by the Rochester Museum Association, was presented on May 13 to Dr. George H. Whipple, dean of the University of Rochester School of Medicine and Dentistry. In 1934 Dr. Whipple was cowinner with

Drs. George R. Minot and William P. Murphy, of Boston, of the Nobel Prize in Medicine.

Dr. Arthur M. Johnson, city health officer, was awarded the Albert David Kaiser medal by the Rochester Academy of Medicine at the annual meeting on May 11.

Dr. Johnson was selected by the board of trustees of the Academy, it was reported, because of his ability as health officer and as coordinator of medical defense activities.

To qualify for the medal, which was established in 1939, the recipient must be a member of the Academy who has made an outstanding contribution to scientific research, to the medical profession, or of service to the entire community.

Dr. Johnson has been health officer for eleven years and is now chief of the local Emergency Medical Service of the Office of Civilian Defense. The citation was presented by Dr. Stearns S. Bullen, chairman of the committee on awards.

Previous medalists have been Dr. Kaiser, Dr. David B. Jewett, and Dr. John R. Williams.*

New York County

More than 500 families of moderate means have come to The Consultation Center for advice and help during its first year of operation, according to the first annual report made public on May 8 by Ira M. Younker, chairman of The Consultation Center and a trustee of the Jewish Social Service Association, one of the agencies of the Federation for the Support of Jewish Philanthropic Societies.

These 500 families represented 3,000 separate consultations on complex personal and family problems.

A unique project in the field of family welfare, The Consultation Center has attracted national interest. The purpose of The Center is to make available to those of moderate income a professional service which will help them solve their personal and family difficulties, which today are intensified by war conditions. A minimum fee has made it easier and more comfortable for this group to apply for help, according to the report.

Dr. Joseph Jordan Eller lectured with lantern slide demonstrations to the Army Medical and Dental Corps at the Morrison Field Hospital, West Palm Beach, Florida, on May 7. His subject was "The Diagnosis and Treatment of Benign and Malignant Tumors of the Skin."

At the regular meeting of the Clinical Society of the New York Polyclinic Medical School and Hospital held on Monday, May 3, at 8:30 P.M., the following program was presented: "The Sulfonamides," by James P. Croce, M.D.; "Blood Pressure and the Total Individual," by John Carroll, M.D.; "The Treatment of Paroxysmal Tachycardia and Auricular Fibrillation," by Harold E. B. Pardee, M.D.; "The Management of Lung Abscess," by George G. Ornstein, M.D.; "Apocrine Breast Cancer" (Colored Motion Picture), by Herbert C. Chase, M.D.; "Evaluation of Excretion Urography as Compared with Instrumental Urography," by Joseph F. McCarthy, M.D.; "Gastroduodenal Ulcer; Its Surgical Approach," by Robert E. Brennan, M.D.; "The Hypertonic Infant," by Sidney V. Haas, M.D.; "Premature Babies," by

W. Morgan Hartshorn, M.D.; "Endometrial Implant Occurring in Abdominal Scar Following Cesarean Section," by Edward H. Dennen, M.D.; "The Treatment of Empyema as a Postoperative Complication," by Henry I. Goodman, M.D.; "Three Simple Tests for Bedside and Office Diagnosis of Liver Diseases," by Samuel Weiss, M.D.; and "The Status of Gastroenterology in Medicine," by G. Randolph Manning, M.D.

A report on a two-year experiment in providing family doctors for a group of low-income families on New York City's East Side at a charge of 25 cents a month a person has been made public by the Corlears Hook Medical Association, conductors of the experiment, with the recommendation that its program be placed on a large-scale basis through the help of city funds.

A copy of the report was sent to Mayor F. H. LaGuardia, who appointed a committee to work out a medical insurance plan for moderate-income families of the city. Dr. J. Stanley Kenney, president of the Medical Society of the County of New York, a member of the committee, said last night that the two-year experiment was one of the bases from which the committee hoped to form "a broader plan applicable to low-income groups."

Vladeck House, an experimental housing project, was chosen for the experiment because its 1,771 families were of the low-income group, the average annual income being \$1,050 a family.

By May, 1942, the association had 695 families on its rolls, each person paying 25 cents a month, with a limit of \$1 a family. The fee entitled him to unlimited house or office treatments from any doctor on the association's panel, the patient having the right to choose his own physician and change doctors whenever he wished.

A panel of 58 doctors volunteered their services on this basis two years ago and, although the panel has since shrunk to about half that number, adequate care is maintained for all families in the plan, Dr. Morris A. Brand, medical director of the association, said. The administrative expenses of the association are paid by the New York Foundation, and the monthly fees go entirely to the doctors. The average remuneration received by the doctors has been 90 cents a visit.*

The Army's first woman physician, Dr. Margaret D. Craighill, is a fellow of the New York Academy of Medicine, the American College of Surgeons, and the American Medical Association, and a diplomate of the American Board of Obstetrics and Gynecology.*

Dr. John J. McGowan was toastmaster at a testimonial dinner tendered Dr. J. Stanley Kenney, president of the Medical Society of the County of New York, at the Hotel Biltmore, Wednesday, May 19. The dinner committee, composed of over 30 physicians, was headed by Dr. Alfred Gilbert Forman, chairman.

Conrad Berens, M.D., has been appointed to the National Committee of the American Medical Association on Conservation of Vision.

Dr. H. van Zile Hyde, regional medical officer for the Second Civilian Defense Region, has been transferred to Washington. Dr. John J. Bourke, deputy state chief of Emergency Medical Service for New York, is now acting regional medical officer for the Second Region.

Joseph B. Altruda, M.D., has been appointed associate surgeon in charge of plastic surgery at Mother Cabrini Memorial Hospital.

The Medical and Surgical Relief Committee of America, 420 Lexington Avenue, New York City, has issued an urgent appeal for drugs and instruments to enable it to continue its work of providing emergency medical kits to Coast Guard patrol boats and Navy sub-chasers.

Among the items sorely needed to equip the emergency kits are artery clamps, splinter forceps, scalpels, probes, grooved directors, sulfadiazine tablets, sulfadiazine ointment (5 per cent), sulfathiazole tablets, and sterile shaker envelopes of crystalline sulfanilamide. Any other spare medicines or surgical instruments are, of course, also welcome

New York University has received approval from the council on medical education and hospitals of the American Medical Association for its program to train occupational therapists.

The University's training program, offered in the School of Education, is one of seven in the country which has been approved by the American Medical Association for housing, equipment, curriculum, teaching staff, facilities for practice training in hospitals and financial stability, the announcement stated. Graduates will be eligible after one year of successful practice for listing in the directory of registered occupational therapists maintained by the American Occupational Therapy Association.

A minimum of nine months' training in co-operating hospitals of varied specialties, in addition to four years of college training in biologic and social sciences, clinical subjects, and the arts and crafts, is included in the program. Nearly a score of hospitals in general, psychiatric tuberculosis, children's, and orthopaedic fields cooperate with the university in offering this training.*

Being medical adviser to the Iranian government is a big job, according to Dr. A. A. Neuwirth, former New York City physician and resident of Floral Park, Long Island, and now a lieutenant colonel in the U.S. Army, on loan to Iran. Among his duties are acting as adviser and consultant at the Pasteur Institute in Teheran; advising the American Lend-Lease mission on medical supplies needed in Iran; serving as medical liaison officer with the American Mission to the Iranian army; and working with the Ministry of Health's commission on typhus, smallpox, and typhoid fever.

In his spare time Lt. Col. Neuwirth makes plans for a potable water supply throughout the country, consults with other physicians on difficult cases, and systematizes the medical department of the Iranian army.

Lt. Col. Neuwirth has been in the Army Medical Corps since 1939 and has been in Iran since Feb-

ruary, 1942, when he stopped there with a Lend-Lease mission to aid in the Iranian fight against typhus. He was subsequently chosen medical adviser to the government.

Dr. Charles Frederick Bolduan, retiring director of the Bureau of Health Education of the New York City Department of Health, was the guest of honor at a testimonial dinner held at the Fifth Avenue Hotel, New York City, on Thursday, May 20, at 7:00 P.M. The dinner was sponsored by employees of the Health Department of New York City.

Health Commissioner Ernest L. Stebbins presided, and the speakers included: Dr. James Alexander Miller, former president of the Academy of Medicine, and now chairman of the Academy's Committee on Public Health Relations; Dr. Haven Emerson, former Commissioner of Health and now a member of the Board of Health; Dr. E. H. Lewinski-Corwin, executive secretary of the Committee on Public Health Relations of the Academy of Medicine; and three members of the staff of the New York City Department of Health—Dr. Gustav I. Steffen, an assistant director of the Bureau of Laboratories; Dr. Samuel Frant, director, Bureau of Preventable Diseases; and Mr. Will F. Clarke, assistant in the Bureau of Health Education.

Dr. Bolduan's long career in public health began in 1904 when he joined the Department of Health staff as a bacteriologist. Three years later he was promoted to the position of assistant to Dr. Hermann M. Biggs, general medical officer of the Health Department. In 1914 Dr. Bolduan organized and became the first director of the Department's Bureau of Health Education, in which capacity he remained until 1918. From 1918 until 1928 he was with the United States Public Health Service, first as chief of the section on health education and later as a surgeon in the U.S. Consular Service in Europe. In 1928 he returned to the New York City Department of Health as director of the Bureau of Health Education. His retirement on June 1, 1943, completes 39 years of continuous service in the public health field.

Dr. Bolduan is perhaps best known to public health workers as a teacher, lecturer, and writer. From 1905 to 1908 he was professor of bacteriology and hygiene at Fordham University and from 1929 to 1941 was a lecturer in preventive medicine and hygiene at the same institution. From 1916 to 1921 he was a lecturer in preventive medicine and hygiene at Columbia University. He is the author of several books, including two standard textbooks: *Applied Bacteriology and Immunology for Nurses*, now in its eighth edition, and *Public Health and Hygiene; a Student's Manual* which is in its third edition. Innumerable scientific papers by him have appeared in the publications and reprint series of the Department of Health and in the leading medical journals of the country. He was the editor of the *Quarterly Bulletin*, published by the Department.

Oneida County

Dr. Ira F. Thompson, who was special administrative assistant in the Syracuse Health Department during the Milbank health demonstration, has been named by Gov. Walter S. Goodland, of Wisconsin, as a member of the State Board of Health.

Dr. Thompson is widely known for his work in the public health field. Before coming to Syracuse he was deputy health commissioner in Milwaukee,

and since leaving Syracuse in 1932 he has been the health officer in Racine, Wisconsin. As chairman of municipal administrative practice of the American Public Health Association, Dr. Thompson drafted the record forms now used in nearly all city health departments.*

Dr. George Block has arrived in New York Mills to take over the practice of Dr. Moritz Elias, who entered the service recently.*

The following editorial appeared in the *Utica Press* of April 23:

"Characteristic of the late Dr. Andrew Sloan was the fact that he was a charter member and first president of the Utica Academy of Medicine and for more than twenty years the chief of staff of St. Luke's Hospital. He devoted himself to his profession, and for some forty years was one of Utica's most respected physicians.

"But his interests were not limited by the requirements of his profession. As a native Utican and a member of one of its older families, he took a useful part in many community enterprises. Dr. Sloan was a man of unusual personality, who had a great gift for friendship. That fact, together with his service to the people of Utica, accounts for the keen regret which his death occasioned."

Ontario County

The second quarterly meeting of the county society was held in Clifton Springs on April 13. The program consisted of a business meeting at 5:00 P.M., a dinner at 6:00 P.M., and a scientific session following the dinner. The surgical staff of the Clifton Springs Sanitarium and Clinic gave a "Clinic on Fractures of the Hip."

Dr. C. M. Lee, recently of Wu Shih, China, has joined the Surgical Staff of the Clifton Springs Sanitarium and Clinic.

Dr. T. R. Nichols, of Clifton Springs, will leave early in May to establish practice in Morgantown, North Carolina.

Orange County

Dr. Theodore W. Neumann, of Central Valley, has succeeded Dr. R. L. Schmitt, of Middletown, president of the Orange County Health Association.*

Otsego County

Dr. Cornelius F. Ryan, an assistant physician at Homer Folks Hospital since 1940, has resigned to open his own practice in Oneonta.

A native of Schenectady, Dr. Ryan was graduated from Albany Medical College in 1935.*

Queens County

The county medical society has announced the appointment of a committee to advise the Queens War Price and Rationing Boards on matters pertaining to the medical profession.

This committee, headed by Dr. Francis G. Riley, of Jamaica; includes Dr. Thomas D'Angelo, of Jackson Heights; Dr. Henry C. Eichacker, of Ridgewood; Dr. Charles M. Levin, of Richmond

Hill; Dr. Joseph S. Thomas, of Flushing; and Dr. Abraham W. Victor, of Far Rockaway.

These doctors, appointed by Dr. Jacob Werne, of Jamaica, president of the society, will give particular consideration to the gas rationing problems of the medical profession.

Dr. Levin will head a subcommittee to advise the Queens boards on food problems as they relate to sick persons who need special diets.

This subcommittee supersedes an unofficial medical panel that advised the Jamaica Rationing Board on diet ration problems and which was headed by Dr. Michael Schultz, of Hollis.*

. . .

Dr. Edward R. Richardson, of Flushing, has gone to Boston City Hospital to take up his new duties as an intern assistant to professors of Harvard University.

Dr. Richardson was graduated from Dartmouth College in 1939 and served as a student intern at the Schenectady Home, the Troy Hospital, and the Albany Hospital.

At present he holds the rank of lieutenant in the Army Reserve.*

. . .

Dr. Paul E. Rekers, has issued cards announcing that he will practice medicine in the former offices of Dr. Lief Y. Jacobsen in Douglaston.

A graduate of the School of Medicine in the University of Rochester, Dr. Rekers subsequently took four years of surgical training in Yale University and later did three years of research work at Memorial Hospital in Manhattan. He is at present a member of the staff of Memorial Hospital.*

Rensselaer County

Dr. Benjamin J. Slater, medical director of the Kodak Park Division, Eastman Kodak Company, Rochester, was the principal speaker at the annual meeting of the Rensselaer County Tuberculosis and Public Health Association at the Hendrick Hudson Hotel on May 6.

Dr. Slater, who is vice-president of the Monroe County Tuberculosis and Health Association, spoke on "A Planned Health Program."*

. . .

Dr. Leo Freyberg, of Troy, has been appointed a qualified examiner of the Department of Mental Hygiene for service in Rensselaer County by County Judge Harry E. Clinton.*

Richmond County

A resolution paying tribute to the memory of Dr. H. Lynn Halbert, president of the Richmond County Medical Society, who died recently, was adopted by the society at a meeting held in the Richmond Health Center, St. George, on April 14. A copy will be sent to the doctor's family.

Dr. Allen G. Robinson, assistant professor of radiology at New York Medical College and a lieutenant commander in the U.S. Naval Reserve, spoke on "Radiation Therapy in Civil and Military Practice."

Several medical officers of Halloran General Hospital were guests at the meeting. Dr. D. V. Catalano presided.*

Schenectady County

The public has been urged to become "cancer conscious" by Dr. Ellis Kellert, of Schenectady, chairman of the cancer control committee, in a paper he has prepared in connection with the annual campaign of the Women's Field Army to control cancer, which is now being conducted.

"The cancer committee of the Medical Society of the County of Schenectady urges the public at this time," said Dr. Kellert, "to become cancer conscious; to be alert to the well-recognized danger signals which should not be neglected under the stress of present-day conditions."*

. . .

In cooperation with the war council program to provide adequate care and protection for preschool age children of mothers employed in war industries, the personnel and facilities of the Department's Division of Maternity, Infancy, and Child Hygiene have been utilized in dental health education and correction of dental defects of 65 children enrolled in the nursery classes of the Pleasant Valley, Hamilton, and Van Corlaer schools in Schenectady. When the program is in full swing, it is expected that the enrollment will reach about 300.

The division dental hygienist examined the children and gave them oral prophylaxis. She also assisted the classroom teacher and volunteer aides in presenting the dental health education aspects of the program to the parents of these children. Sixty-one families were represented, including 44 in which mothers were employed and 8 in which the fathers worked nights and slept during the day. Nine families were either in the low-income brackets or had many children and insufficient help at home.

The senior dentist, operating in the division dental trailer, examined and x-rayed the teeth of 62 of the children. Three hundred carious teeth were found in 51, 5.8 per child; 20 in 6 of the 10 two-year-olds, 3.3 per child; 46 in 7 of the 8 three-year-olds, 6.5 per child; 194 in 32 of the 37 four-year-olds, 6.0 per child; and 40 in 6 of the 6 five-year-olds, 6.6 per child. Among the entire group, there were 21 teeth which had been either previously extracted or indicated for extraction; 11 teeth in these categories were in the mouth of one four-year-old child.

Forty-four of the 51 children requiring corrections received complete treatment (86 per cent). The program was carried on during the severest part of the winter between February 10 and March 15, when there were many absences from school. Otherwise, services to a higher percentage of the children would probably have been completed.

Following corrective treatment, the division hygienist again visited the parents and explained the importance of the services rendered, the importance of good daily home care and of periodic inspection and care by the dentist.—David B. Ast, D.D.S., in *Health News*.

. . .

Dr. Bruno C. Mazurowski, of Schenectady, has been appointed to membership on the Schenectady County alcoholic beverage control board to succeed the late Dr. Henry G. Hughes. Announcement of Dr. Mazurowski's selection was made by Chairman James P. Kalteux of the board of supervisors.*

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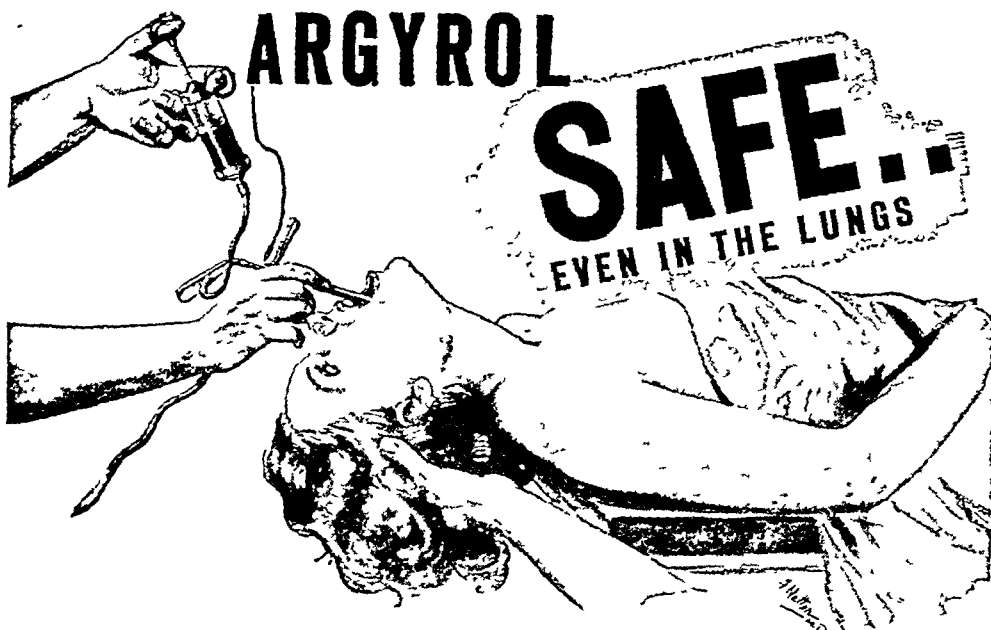
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For Safe Effective Antisepsis Without Pulmonary Complications

The fact that ARGYROL has been used repeatedly and with good effect in the bronchoscopic irrigation of the lungs is striking evidence of its freedom from any tendency towards pulmonary complications.

But this is only one of ARGYROL'S many unique advantages. For ARGYROL is *not* just another "germ-killer." It is peculiarly adapted to the treatment of mucous membrane infections. It not only attacks the infectious organisms directly but many writers have observed that it appears to aid and abet the natural defensive mechanisms of the tissues. It promotes a decongestion and circulatory stimulation without resort to powerful vasoconstriction. It stimulates the mucous

glands so as to effect "a physiologic washing of the membrane." It produces no ciliary injury. It is detergent and inflammation-dispelling. And above all, it remains bland and non-irritating in all concentrations from 1% to 50%. Some explanation of ARGYROL'S superiority in these respects is likely to be found in its controlled pH and pAg, its fine colloidal dispersion, its more active Brownian movement.

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Suffolk County

Dr. William Lathrop Love, State Senator for ten years from Brooklyn, and for that period a member of the Health Committee of the Senate, has taken up his permanent residence in East Hampton, where he will practice his profession. He will continue to be a member of the consulting medical staff of the Cumberland Hospital and of the Brooklyn Nursery and Infants Hospital.*

Washington County

Dr. Roy E. Borrowman, of Fort Edward, has been appointed supervisor of Washington County.*

Westchester County

On April 6, Dr. Erich H. Restin, of Mount Vernon, resigned his post as Chief of Emergency Medical Service for the Westchester County War Council. On the same day the Hon. Herbert C. Gerlach, county executive and Director of Civilian Protection for Westchester County, announced the appointment of Dr. E. Leslie Burwell, of New Rochelle, as the new director of Emergency Medical Service, succeeding Dr. Restin. Simultaneously, Dr. George C. Adie, president of the county medical society, announced the appointment of Dr. Burwell as chairman of the county society's War Participa-

tion Committee, a post relinquished by Dr. Restin at the same time that he resigned the directorship of Emergency Medical Service. On April 15, Dr. Burwell announced the appointment of Mr. James E. Bryan, executive secretary of the county medical society, as deputy director of emergency medical service for the county. The director's desk at the district Warning Center in White Plains is regularly staffed by Dr. William A. Holla, county health commissioner, and Mr. Bryan, both of whom reside in White Plains.—*Westchester Med. Bull.*

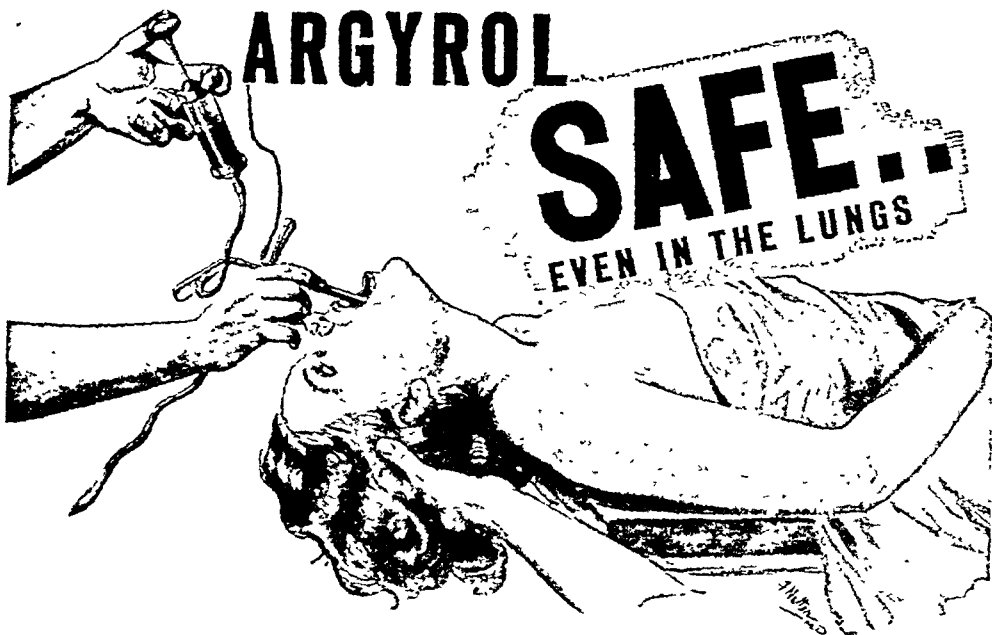
. . .

Dr. George J. Hogben, of Rye, Dr. John Cannon, of Scarsdale, and Dr. Horace E. Robinson, of Pleasantville, are among the new members of the board of directors of the Westchester Tuberculosis and Public Health Association, elected at the Association's Annual Meeting on April 14. Mr. Alf L. Carroll, of Scarsdale, was re-elected president of the Association.

Case-finding reports were presented by Dr. John H. Korn, director of the tuberculosis division of the county health department; Dr. Joseph J. Arminio, school physician, of Ossining; Dr. Ebba Dederer, school physician, of Mount Vernon; Dr. William G. Childress, director of tuberculosis at Grasslands Hospital; and others.

Deaths of New York State Physicians

Name	Age	Medical School	Date of Death	Residence
Dewitt P. Bailey	77	N.Y. Univ.	April 30	Binghamton
Arthur C. Brush	81	P. & S., N.Y.	March 17	Manhattan
Roy M. Collie	59	Albany	April 24	Schenectady
Warren C. Daly	69	N.Y. Hom.	May 2	Rochester
John O. Downey	60	Pennsylvania	February 2	Manhattan
Raymond G. Edmans	71	Albany	April 22	Troy
Louis Ferber	41	Univ. & Bell.	May 9	Brooklyn
Risq G. Haddad	68	Univ. & Bell.	May 8	Brooklyn
Dudley M. Hall	81	Maryland	May 3	Glens Falls
Louis Lefrak	70	L.I.C. Hosp.	February 21	Manhattan
Harold J. McDonald	54	St. Louis	April 25	Buffalo
William Moffatt	74	Queens, Canada	May 11	Utica
Lewis K. Neff	81	Bellevue	May 6	Manhattan
John J. Randall	51	Albany	April 29	Wynantskill
Reginald W. H. Rollings	56	N.Y. Hom.	April 27	Manhattan
Jacob C. Rosenblueth	72	P. & S., N.Y.	February 21	Manhattan
Matthew M. Ryan	75	Hahne., Chicago	April 23	Philadelphia
Eli Silberschein	26	Bologna	January 24	Brooklyn
Horace R. Taylor	57	Buffalo	April 23	Whitesville
James H. Van Buren	63	Albany	April 23	Elmira
U. Samuel Ward	80	Bellevue	April 30	Manhattan



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glands so as to effect "a physiologic washing of the membrane." It produces no ciliary injury. It is detergent and inflammation-dispelling. And above all, it remains bland and non-irritating in all concentrations from 1% to 50%. Some explanation of ARGYROL's superiority in these respects is likely to be found in its controlled pH and pAg, its fine colloidal dispersion, its more active Brownian movement.

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Books

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn, N.Y. Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

RECEIVED

Principles and Practice of War Surgery. By J. Trueta, M.D. Octavo of 441 pages, illustrated. St. Louis, The C. V. Mosby Company, 1943. Cloth, \$6.50.

Chemotherapy of Gonococcic Infections. By Russell D. Herrold, M.D. Octavo of 137 pages. St. Louis, The C. V. Mosby Company, 1943. Cloth, \$3.00.

Operative Oral Surgery. By Leo Winter, D.D.S. Second edition. Octavo of 1,074 pages, illustrated. St. Louis, The C. V. Mosby Company, 1943. Cloth, \$12.50.

Tables of Food Values. By Alice V. Bradley, M.S. Quarto of 224 pages. Peoria, Ill., The Manual Arts Press, 1942. Cloth, \$3.50.

Textbook of Pharmacognosy. By Heber W. Youngken. Fifth edition. Octavo of 1,038 pages, illustrated. Philadelphia, The Blakiston Company, 1943. Cloth, \$7.50.

Behind the Sulfa Drugs: A Short History of Chemotherapy. By Iago Galdston, M.D. Duodecimo of 174 pages. New York, Appleton-Century Company, 1943. Cloth, \$2.00.

Operating Room Technique. By Edythe L. Alexander, R.N. Octavo of 392 pages, illustrated. St. Louis, The C. V. Mosby Company, 1943. Cloth, \$3.75.

Neurosurgery and Thoracic Surgery. [Military Surgical Manuals Vol. VI.] Prepared and Edited by the Subcommittees on Neurosurgery and Thoracic Surgery of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. Octavo of 310 pages, illustrated. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$2.50.

Gynecology With a Section on Female Urology. By Lawrence R. Wharton, M.D. Octavo of 1,006 pages, illustrated. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$10.

The Medical Clinics of North America. Vol. 27, No. 2. March, 1943. Octavo. Illustrated. Philadelphia, W. B. Saunders Company, 1943. Published bimonthly (six numbers a year). Cloth, \$16 net; Paper, \$12 net.

The March of Medicine. The New York Academy of Medicine Lectures to the Laity, 1942. Octavo of 217 pages. New York, Columbia University Press, 1943. Cloth, \$2.50.

Synopsis of Diseases of the Skin. By Richard L. Sutton, M.D., and Richard L. Sutton, Jr., M.D. Duodecimo of 481 pages, illustrated. St. Louis, The C. V. Mosby Company, 1943. Cloth, \$5.50.

Doctor in the Making. The Art of Being a Medical Student. By Arthur W. Ham, M.B., and M.D. Salter, Ph.D. Duodecimo of 179 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1943. Cloth, \$2.00.

Brucellosis in Man and Animals. By I. Forest Huddleson, D.V.M. Revised edition. Octavo of 379 pages, illustrated. New York, The Commonwealth Fund, 1943. Cloth, \$3.50.

The Inner Ear. By Joseph Fischer, M.D., and Louis E. Wolfson, M.D. Octavo of 421 pages, illustrated. New York, Grune & Stratton, Inc., 1943. Cloth, \$5.75.

The Kenny Concept of Infantile Paralysis and Its Treatment. By John F. Pohl, M.D. Octavo of 366 pages, illustrated. St. Paul, Minnesota, Bruce Publishing Company, 1943. Cloth, \$5.00.

War Injuries of the Chest. Edited by H. Morrison Davies and Robert Coope. Duodecimo of 131 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1942. Cloth, \$2.00.

Acute Infections of the Mediastinum. By Harold Neuhoof, M.D., and Edward E. Jemerin, M.D. Octavo of 407 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1943. Cloth, \$6.00.

Neurology. By Roy Grinker, M.D. Third edition. Octavo of 1,136 pages, illustrated. Springfield, Ill., Charles C. Thomas, 1943. Cloth, \$6.50.

Manual of Industrial Hygiene and Medical Service in War Industries. Issued under the Auspices of the Committee on Industrial Medicine of the Division of Medical Sciences of the National Research Council. By William M. Gafafer, D.Sc. (Ed.) Octavo of 508 pages. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$3.00.

Primer of Allergy. Second edition. By Warren T. Vaughan, M.D. Duodecimo of 176 pages, illustrated. St. Louis, The C. V. Mosby Company, 1943. Cloth, \$1.75.

Flying Men and Medicine: The Effects of Flying upon the Human Body. By E. Osmun Barr, M.D. Octavo of 254 pages. New York, Funk & Wagnalls Company, 1943. Cloth, \$2.50.

Blood Groups and Transfusion. Third edition. By Alexander S. Wiener, M.D. Quarto of 438 pages, illustrated. Springfield, Ill., Charles C. Thomas, 1943. Cloth, \$7.50.

A Family of Thirty Million: The Story of the Metropolitan Life Insurance Company. By Louis I. Dublin, Ph.D. Octavo of 496 pages, illustrated. New York, Metropolitan Life Insurance Company, 1943.

Outline of Roentgen Diagnosis. Second edition. By Leo G. Rigler, M.D. Octavo of 196 pages, 254 illustrations shown in 227 figures, drawings, and reproductions of roentgenograms. Philadelphia, J. B. Lippincott Company, 1943. Cloth, \$6.50.

Methods for Diagnostic Bacteriology. By Isabelle G. Schaub, A.B., and M. Kathleen Foley, A.B. Second edition. Octavo of 430 pages. St. Louis, The C. V. Mosby Company, 1943. Cloth, \$3.50.

Clinical Roentgenology of the Cardiovascular System. By Hugo Roseler, M.D. Second edition. Quarto of 480 pages, illustrated. Springfield, Ill., Charles C. Thomas, 1943. Cloth, \$7.50.

Transurethral Prostatectomy. By Reed M. Nesbit, M.D. Octavo of 192 pages, illustrated. Springfield, Ill., Charles C. Thomas, 1943. Cloth, \$7.50.

Clinical Significance of the Blood in Tuberculosis. By Gulli Lindh Muller, M.D. Octavo of 516 pages.

[Continued on page 1076]



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[Continued from page 1074]

New York, The Commonwealth Fund, 1943. Cloth, \$3.50.

Creatine and Creatinine Metabolism. By Howard H. Beard, Ph.D. Octavo of 376 pages, illustrated. Brooklyn, N.Y., Chemical Publishing Company, Inc., 1943. Cloth, \$1.00.

Principles and Practice of Obstetrics. By Joseph B. DeLee, M.D., and J. P. Greenhill, M.D. Eighth edition. Quarto of 1,101 pages, illustrated. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$10.

Clinical Diagnosis by Laboratory Methods. By James C. Todd, M.D., and Arthur H. Sanford, M.D. Tenth edition. Octavo of 911 pages, illustrated. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$6.00.

Burns, Shock Wound Healing and Vascular Injuries. [Military Surgical Manuals, Vol. V]. Prepared under the Auspices of the Committee on Surgery of the Division of Medical Sciences of the National Research Council. Octavo of 272 pages, illustrated. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$2.50.

Manual of Veterinary Bacteriology. By Raymond A. Kelser, D.V.M., and Harry W. Schoening, V.M.D. Fourth edition. Octavo of 719 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1943. Cloth, \$6.50.

Therapeutics of Infancy and Childhood. Edited by Harry R. Litchfield, M.D., and Leon H. Dembo, M.D. 4 vols. and desk index. Octavo of 3,831 pages, profusely illustrated. Philadelphia, F. A. Davis Company, 1942. Cloth, \$32.

Therapeutics of Infancy and Childhood, according to the editors, Drs. Litchfield and Dembo, "was conceived in the interest of pediatricians, general practitioners, and those intimately concerned with the welfare of the infant and child." They planned "a work in which the treatment of diseases of the infant and child, no matter how insignificant or minor it might seem, would be included; a reference so complete in detail that when consulted it would make immediately available all desired information." Whether the authors have realized this laudable ambition the reader himself must decide. The limited scope of this review makes a detailed evaluation impossible.

The editors have had the cooperation of at least 115 contributors, including some of the outstanding names in contemporary pediatrics. Every phase of therapy, including psychotherapy, drug therapy, and pediatric surgery, is discussed. With such a large field to be covered and with so many contributors participating, unevenness in the quality of the articles must be expected. Some of the authors have drawn upon their wealth of clinical experience, while others have leaned heavily upon the literature.

Most of the articles are written in good, readable English. There are numerous illustrations, many in colors. In some of the articles the English is poor, the sentence structure is clumsy, and the meaning is ambiguous. Occasionally one finds expressions like the following (Volume I, page 780): "The course is usually short, fast, stormy, and exitus from a few days to a few weeks."

Obstetrical Practice. By Alfred C. Beck, M.D. Third edition. Quarto of 938 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1942. Cloth, \$7.00.

Essentials of Proctology. By Harry E. Bacon, M.D. Duodecimo of 345 pages, illustrated. Philadelphia, J. B. Lippincott Company, 1943. Cloth, \$3.50.

Diseases of the Nose, Throat and Ear. By William Lincoln Ballenger, M.D., and Howard Charles Ballenger, M.D. Eighth edition. Octavo of 975 pages, illustrated. Philadelphia, Lea & Febiger, 1943. Cloth, \$12.

Man in Structure and Function. By Fritz Kahn, M.D., Translated from the German and edited by George Rosen, M.D. Volumes I and II. Octavo of 742 pages, illustrated. New York, Alfred A. Knopf, Inc., 1943. Cloth, \$10.

Standard Nursing Procedures of the Department of Hospitals, City of New York. Prepared by the Committee on Nursing Standards, Division of Nursing, Department of Hospitals, Mary Ellen Manley, R.N., M.A., Director. Octavo of 436 pages, illustrated. New York, The Macmillan Company, 1943. Cloth, \$3.25.

Medical Leaves: A Review of the Jewish Medical World and Medical History. Vol. V. Dr. Hershel Meyer (Ed.). Quarto of 190 pages, illustrated. Chicago, Medical Leaves, Inc., 1943.

REVIEWED

There is no doubt that, in spite of their defects, both the general practitioner and the pediatric specialist will find these volumes useful. The material, for the most part, is up to date, but with the rapid advances in therapy, revision will no doubt be necessary to keep pace. There is a separate volume devoted to a subject index. Unfortunately there is no author's index.

BENJAMIN KRAMER

Vascular Sclerosis with Special Reference to Arteriosclerosis. Pathology, Pathogenesis, Etiology, Diagnosis, Prognosis, Treatment. By Eli Mocshowitz, M.D. Octavo of 178 pages, illustrated. New York, Oxford University Press, 1942. Cloth, \$3.75.

This small volume presents the author's views on arteriosclerosis and similar sclerosis of other parts of the cardiovascular system. He believes that the dominant factor in the production of sclerosis is intravascular pressure. He reviews critically the work of others in the field of vascular sclerosis.

Some points which could have been discussed are not mentioned. However, the author's views are fairly presented, and the book is very stimulating. The illustrations and printing are excellent. The book is easy to read. Everyone interested in this field should find it worth while.

J. HAMILTON CRAWFORD

A Textbook of Gynecology. By Arthur H. Curtis, M.D. Fourth edition. Octavo of 723 pages, illustrated. Philadelphia, W. B. Saunders Company, 1942. Cloth, \$8.00.

The fourth edition of this well-known book is even better than its predecessors. The discussion of chronic pelvic inflammatory disease and also the

[Continued on page 1078]

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[Continued from page 1076]

recent ideas on the pathology of myomata are excellent. The new investigations into pelvic anatomy recently made by Curtis are well stated and beautifully illustrated.

Although very complete in most of its coverage, the work is, however, sketchy in spots. It is nevertheless an excellent book for the medical student or the general practitioner and is highly recommended for their purposes.

CHARLES A. GORDON

The Anatomy of the Nervous System. By Stephen W. Ranson, M.D. Seventh edition. Octavo of 520 pages, illustrated. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$6.50.

This is the seventh edition of a work that has assumed a prominent position in anatomy as well as in neurology. This revision, published shortly before Dr. Ranson's death, represents his latest thoughts on the subject.

There has been a complete revision of the chapter on "The Sympathetic Nervous System," and there has been extensive revision of the sections on the rest of the brain. At the suggestions of various colleagues, there has been rearrangement of the numerous illustrations. The extrapyramidal motor pathways have received considerable attention.

The book has always received a cordial welcome from those who teach neurology, and the present revision should be similarly received. This book is highly recommended for students as well as for those who are interested in neurology and in neuroanatomy.

IRVING J. SANDS

The Principles of Anatomy as Seen in the Hand. By Frederic W. Jones. Second edition. Octavo of 418 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$7.50.

For those who are interested in the hand as a hobby, this volume contains many interesting by-paths of quaint information, and numerous diverting references to the observations of old authors. But those who want a textbook on the hand will find such reading too time-consuming and too minutely philosophical for practical use. In times like these, why compare the number of hairs to a square centimeter of skin in man, the orang, the gibbon, the chimpanzee, and the macaque monkey? And why remind us that "There is no need to dilate upon the myriad functions discharged by the mobile human digits?"

Throughout, the author stresses comparative anatomy—which is important, but not pat for the wartime surgeon. Not until the writer discusses the dissection of the hand and forearm does the practical reader begin to find what he wants, and then only concealed in long, leisurely sentences. Indeed, one must admire the man who, as he informs us, is able to write such sentences "during the intervals between routine duties and air-raid signals."

The line drawings are relatively few, and are, for the most part, diagrammatic. Those representing dissections lack depth, roundness, and contrast.

Although not of immediate value to the surgeon, nor yet to the rushed medical student of today, the volume will be of interest to the leisurely armchair anatomist.

CARLETON CAMPBELL

Fractures of the Jaws and Other Facial Bones. By Glenn Major, M.D. Octavo of 446 pages, illustrated. St. Louis, C. V. Mosby Company, 1943. Cloth, \$7.50.

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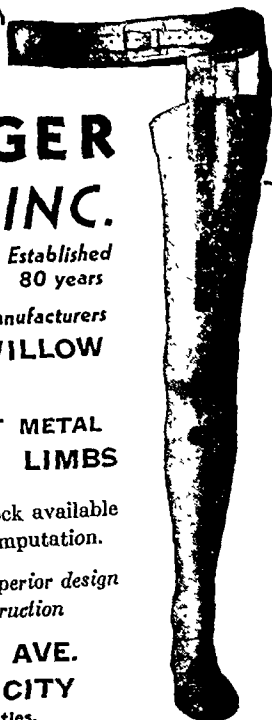
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This is a well-written, comprehensive, readable volume, obviously the work of an experienced maxillofacial surgeon. Nothing of value pertaining to the subject of maxillary, mandibular, and zygomatic fractures has been omitted.

The chapter on general types of fixation in fractures of the maxilla and mandible is of great practical value; unfortunately, neither the author nor anyone else has hit upon the ideal treatment of fractures of the mandible posterior to the third molar. This will come soon, we hope.

The subject of bone grafts of the jaw is handled in an admirable manner, and the surgeon who treats fractures of the jaws would do well to read with care the Chapter on "Radiographic Technique" by Dr. Freedman. The book can be wholeheartedly recommended.

WALTER A. COAKLEY

Indigestion: Its Diagnosis and Management. By Martin E. Rehfuess, M. D. Octavo of 556 pages, illustrated. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$7 00.

This work from the pen of a master could well be called "from a symptom to a textbook." Truly the author has done just that, difficult as it might seem at first thought. Yet indigestion as a symptom can be caused by so many different conditions that it could very well be made an outstanding subject in a textbook discussing any system or organ of the body. This book could be read with profit by any physician interested in knowing the newest facts in gastrointestinal disease or digestive disturbances in general.

BENJAMIN M. BERNSTEIN

The Antigonadotropic Factor. By Bernhard Zondek and Felix Sulman. Octavo of 185 pages. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$3.00.

The premise of this book deals with the antigonadotropic factor. Discussion of the several phases are detailed under conveniently divided headings, in each of several chapters. A historic review, and the antihormone theory of Collip bring the reader up to the substance of this book.

The author's personal opinions are enhanced by laboratory investigations, which are noted in tables and in references to previous publications. A comprehensive bibliography is appended.

This volume will prove invaluable to the research worker as well as to the clinical endocrinologist.

JACOB S. BEILLY

Bronchiectasis. By James R. Lisa, M.D., and Milton B. Rosenblatt, M.D. Octavo of 190 pages, illustrated. New York, Oxford University Press, 1943. Cloth, \$4.00.

This book presents an exhaustive study of the subject of bronchiectasis, based on a thorough review of the literature and conditioned by the personal experiences of the authors. A complete study of the anatomy and the physiology of the bronchi is followed by chapters on theories of pathogenesis, pathology, bacteriology, and clinical aspects of the disease. Then follows a fair presentation of modern concepts of the treatment, the gist of which is the early application of surgical measures. A very good book for students and practitioners—we recommend it without reservation.

FOSTER MURRAY

Psychosomatic Medicine. By Edward Weiss, M.D., and O. Spurgeon English, M.D. Octavo of

[Continued on page 1083]

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Lumbosacral Sprain	Cholecystectomy	Nidules
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Obesity	Herniotomy	Prenatal
Osteoporosis	Hysterectomy	Prolapsed Breast
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[Continued from page 1076]

recent ideas on the pathology of myomata are excellent. The new investigations into pelvic anatomy recently made by Curtis are well stated and beautifully illustrated.

Although very complete in most of its coverage, the work is, however, sketchy in spots. It is nevertheless an excellent book for the medical student or the general practitioner and is highly recommended for their purposes.

CHARLES A. GORDON

The Anatomy of the Nervous System. By Stephen W. Ranson, M.D. Seventh edition. Octavo of 520 pages, illustrated. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$6.50.

This is the seventh edition of a work that has assumed a prominent position in anatomy as well as in neurology. This revision, published shortly before Dr. Ranson's death, represents his latest thoughts on the subject.

There has been a complete revision of the chapter on "The Sympathetic Nervous System," and there has been extensive revision of the sections on the rest of the brain. At the suggestions of various colleagues, there has been rearrangement of the numerous illustrations. The extrapyramidal motor pathways have received considerable attention.

The book has always received a cordial welcome from those who teach neurology, and the present revision should be similarly received. This book is highly recommended for students as well as for those who are interested in neurology and in neuro-anatomy.

IRVING J. SANDS

The Principles of Anatomy as Seen in the Hand. By Frederic W. Jones. Second edition. Octavo of 418 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$7.50.

For those who are interested in the hand as a hobby, this volume contains many interesting by-paths of quaint information, and numerous diverting references to the observations of old authors. But those who want a textbook on the hand will find such reading too time-consuming and too minutely philosophical for practical use. In times like these, why compare the number of hairs to a square centimeter of skin in man, the orang, the gibbon, the chimpanzee, and the macaque monkey? And why remind us that "There is no need to dilate upon the myriad functions discharged by the mobile human digits?"

Throughout, the author stresses comparative anatomy—which is important, but not pat for the wartime surgeon. Not until the writer discusses the dissection of the hand and forearm does the practical reader begin to find what he wants, and then only concealed in long, leisurely sentences. Indeed, one must admire the man who, as he informs us, is able to write such sentences "during the intervals between routine duties and air-raid signals."

The line drawings are relatively few, and are, for the most part, diagrammatic. Those representing dissections lack depth, roundness, and contrast.

Although not of immediate value to the surgeon, nor yet to the rushed medical student of today, the volume will be of interest to the leisurely armchair anatomist.

CARLETON CAMPBELL

Fractures of the Jaws and Other Facial Bones. By Glenn Major, M.D. Octavo of 446 pages, illustrated. St. Louis, C. V. Mosby Company, 1943. Cloth, \$7.50.

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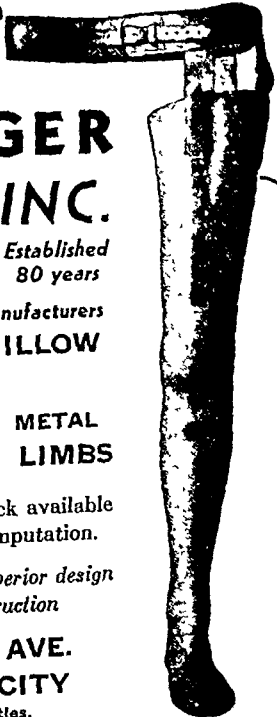
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[Continued from page 1079]

678 pages. Philadelphia, W. B. Saunders Company, 1943. Cloth, \$8.00.

This book, the result of collaboration between an internist and a psychiatrist, is an excellent and much-needed work. It covers the various specialty fields with particular emphasis on the clinical applications of psychopathology to general medical problems. It stresses the importance of knowing the patient not only from the clinical and pathologic view, but also from the emotional and psychologic aspects. Everyone who reads it will have a much clearer idea of the close tie-up existing between general medical and psychiatric problems.

The text is devoted chiefly to practical discussions of the various diseases under a particular specialty and contains 70 case histories which are illustrative and helpful to the reader in seeking a better orientation. The cases are presented in an interesting manner, and as the reader peruses them he will clearly see the mechanisms that produce the patient's disability.

There is a chapter on military medicine which is particularly appropriate now. This shows how the combined efforts of the clinician and the psychiatrist can do much to reduce the number of psychiatric casualties seen in the last war. The authors state: "It is estimated by army officials that one-half the beds in military hospitals are occupied by patients with psychiatric disorders."

The book is recommended as a practical and worth-while addition to the library of every physician. The bibliography offered is complete and up to date.

JOHN M. MURPHY

The Hormones in Human Reproduction. By George W. Corner, M.D. Octavo of 265 pages, illustrated. Princeton, N.J., Princeton University Press, 1942. Cloth, \$2.75.

This book on the processes of sex and reproduction is written primarily for the laity and assumes no familiarity on the part of the reader with biology or other premedical sciences. The author has accomplished the task of describing the most intricate and elaborate mechanisms of the body in a simple and frequently in a most entertaining manner. Before the more complicated mechanisms that occur in the human being are presented, reproduction in lower forms is described, with special emphasis on the role of the hormones. Although emphasis is placed on the hormones, the book is principally concerned with reproduction in the higher mammals in all its phases and represents one of the most complete descriptions of this subject that can be understandable to the laity. The general practitioner, and indeed even the specialist, will find much in the book that will be new to him. The author is an embryologist of world-wide reputation and since 1940 has replaced Dr. Streeter as director of the Department of Embryology at the Carnegie Institution of Washington and Baltimore, and as professor of embryology at Johns Hopkins Medical School. He has done much original work on the anatomy and physiology of human reproduction and is responsible in large part for clarifying the function of the corpus luteum and for isolating progesterin.

This most unusual book represents the best description of the complicated processes of reproduction, including the role of the hormones, written in recent years and is highly recommended to the medical profession as well as to the laity.

ALEXANDER H. ROSENTHAL

[Continued on page 1085]

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[Continued from page 1083]

A Handbook on Diseases of Children Including Dietetics and the Common Fevers. By Bruce Williamson, M.D. Third edition. Duodecimo of 364 pages, illustrated. Baltimore, Williams & Wilkins Company, 1942. Cloth, \$4.50.

This is the third edition of Dr. Williamson's book, and in it the text has been thoroughly revised. It may be recommended as a handbook replete with information and containing descriptions of the diseases which are incident to childhood, as well as discussions of infant welfare, dietetics, and infant feeding. The descriptions are necessarily brief but contain, in general, a proper emphasis on the cardinal features of symptomatology, diagnosis, and treatment. The therapy recommended is quite in accord with modern opinion.

There are certain unique features, particularly the chapters on disorders of the heart and circulatory system and that on nutrition and metabolism. The author has an unusual ability to express very well in concise terms the important features of disease entities. In a number of instances he adds further to the value of the book by making many statements which have the merit that comes from original observation.

JOSEPH C. REGAN

Roentgen Treatment of Diseases of the Nervous System. By Cornelius G. Dyke, M.D., and Leo M. Davidoff, M.D. Octavo of 198 pages, illustrated. Philadelphia, Lea & Febiger, 1942. Cloth, \$3.25.

This book is, as the authors state in their preface, a "summary in English of the literature on the subject and the reports of the experiences of the radiologists interested in this branch of radiotherapy."

The work includes: (1) a summary of experimental effect of radiation on normal nervous tissues; (2) a résumé of the technic used in the treatment of brain tumors in a number of neurosurgical clinics; (3) results obtained from the literature and in detail from the authors' large experience, including case reports; (4) the effect of radiation on pathological processes affecting the nervous system, which not only includes primary tumors but also metastases, infections, and miscellaneous disease conditions.

That great progress has been made in radiation therapy of brain tumors is attested to by the facts that: (1) In the authors' opinion, a pituitary adenoma should no longer be considered for surgery until radiation therapy has been given and found unsuccessful. (2) Other malignant tumors, such as the medulloblastoma, spongioblastoma multiform, astroblastoma, and protoplasmic astrocytoma respond to irradiation even though they are not curable. (3) Postoperative treatment of benign gliomas is recommended, for certain ones have a tendency to become malignant following operative interference.

The bibliography will be helpful to all students of the subject. The reviewer would like to add to this Dr. Merrill Sosman's short summary on the subject to be found in *Radiology*, Volume 36, page 594 (1941).

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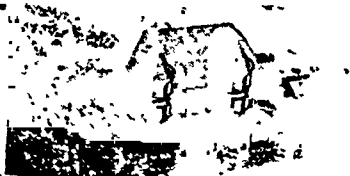
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Where the idea originated, employees were surprised recently to find two checks in their pay envelopes—one for days worked and the other for time absent from their jobs making war materials. The check for not working was drawn on the "Bank of the Axis," signed by Adolph Hitler and counterstamped by Benito Mussolini. Across its face was stamped in red letters: "Negotiable in Human Lives."

The idea is to make out the check in the exact amount of money the worker lost by being away from the job. Some firms include a note explaining that the Axis partners would gladly pay them to stay home and thereby slow down production.

As a result of these checks, one company reported a 27 per cent reduction in absenteeism immediately after the first "checks" were issued. Others have reported similar reductions.

The check was developed by R. S. Robinson, public relation director of Columbian Steel Tank Company of Kansas City, Mo., and the form is produced and copyrighted by R. M. Rigby Printing Company of the same city.

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A bandage bank—a reserve for use in defense emergencies—has been created for a New England hospital by a woman interested in community welfare.

The material is supplied by the hospital and the job of preparing several thousand bandages of various types is being accomplished through the voluntary services of groups of women.

This activity does not duplicate other work done for the hospital and it suggests a worth-while service that might be considered for other hospitals by women's auxiliaries.

SECRET WEAPONS?

Maybe we had a "Pearl Harbor" before December 7, 1941. According to a report by R. V. Stone, *Journ. Lab. & Clin. Med.*, 1941 (Clin. Abstracts), as repeated in the April, 1943, issue of *The Journal of the Medical Society of New Jersey*, anthrax was discovered in imported shaving brushes.

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This link never should be broken,
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The wartime educational program for youths in the armed services, announced jointly by the Army and Navy, provides for a continuation of medical education. Enlisted reserve medical students will be called to active duty at the end of next semester but will then be detailed to continue their medical training. Medical students who have been commissioned in the Medical Administrative Corps may resign and resume their studies as students in the enlisted reserve.

Premedical students will also be called to active duty at the end of next semester. Those selected for further medical training will then be assigned to suitable schools.

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A WAR WORKER'S LUNCH

The typical "stenographers' lunch" of cake and "cola" seems to have been carried over to war workers in heavy industry. A recent survey of luncheon trays in four leading war plants in the Chicago area revealed that only eight per cent of the employees ate sanely. Twenty-one per cent made a choice of food close to the borderline of malnutrition, while 71 per cent purchased totally inadequate meals.

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A "FEARICIDE"

Since the first humans sinned in the Garden of Eden, fear has filled more of our sanitariums and hospitals than some of our worst diseases combined. John Dollard, of the Institute of Human Relations at Yale University, analyzes the causes of this common ailment in his book, "*Victory over Fear*," and suggests some treatments that can be helpful.

The popular remedy for a person in a fear conflict, states the writer, is the recommendation to "forget it." If restless and under pressure, friends advise a vacation or change of diet—or getting tight, having a love affair or some equally inane cure. But science, according to Dollard, tells us to "remember it. Think about it, calculate the chances for good or ill, and act."

This advice is not easy to follow for the usual reaction to fear is flight, mental flight, and thinking against fear is always difficult. Says the author, "There are three invisible barriers which stop the constructive mind at its work. They are: ignorance, laziness, and fear. If we are not the persons we might be it is largely due to these demons of the mind. They make us stupid, frightened, and ineffectual, leaving the tasks undone and the words unsaid which might add much to our happiness and that of others. . . .

"Most people do not begin self-study because they do not know that it is possible and useful. We do not train our children to be able to state

their motives clearly, and often we punish them when they make attempts to do so. Even after years of academic study, a man may have had no more, or even less, practice in knowing his own mind than a person who has had no formal education at all. Instead of being trained to know our wishes and fears most of us are trained to forget them. We remain ignorant, therefore, of the first steps in the art of mastering fear."

The author points out that there are shadow fears and ghosts of fear which have become domiciled in the human mind in childhood. Unreal fear is often distinguished from real fear by calling it "anxiety," and this fear is the painful apprehension left over after we have really been punished for some act. This is the fear that arouses the escape complex, and the desire to stop what is being done and to do something else—it consists of being afraid when there is nothing to be afraid of.

To free the mind, bound and gagged by fear, the author recommends self-study—the recognition and labeling of the unconscious forces at work. He says, "The truth is that self-study brings each person up against his own unsolved problems."

People should learn to ask themselves in the first place, "What am I afraid of in this situation?" What do I really want?" "Can the other person afford to meet my demands?" etc. For, it is only by confronting fear that it can be mastered.

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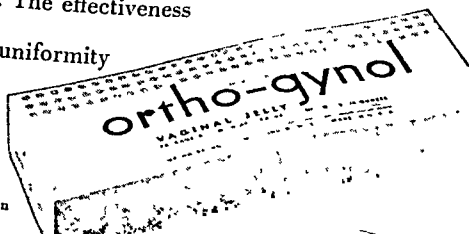
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¹HORWITZ, A.; PERRONI, J.; KRALJEVIC, R., and GARCIA HUIDOBRO, J.: *Rev. med. de Chile* 70:31 (Jan.) 1942; abstracted in *J. A. M. A.* 119:531 (June 6) 1942.

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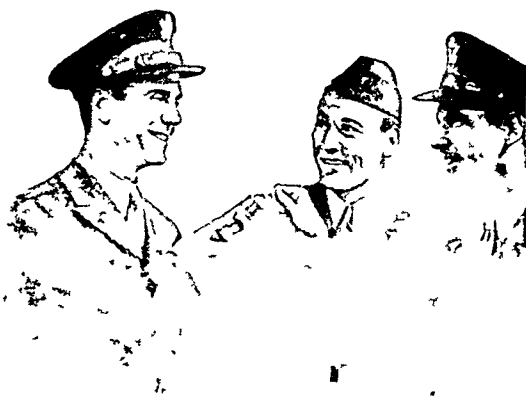
¹¹REPORT: Circular Letter No. 17, Office of the Surgeon General: *War Med.* 2:466 (May) 1942.



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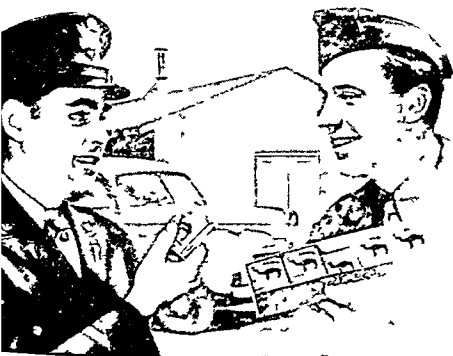
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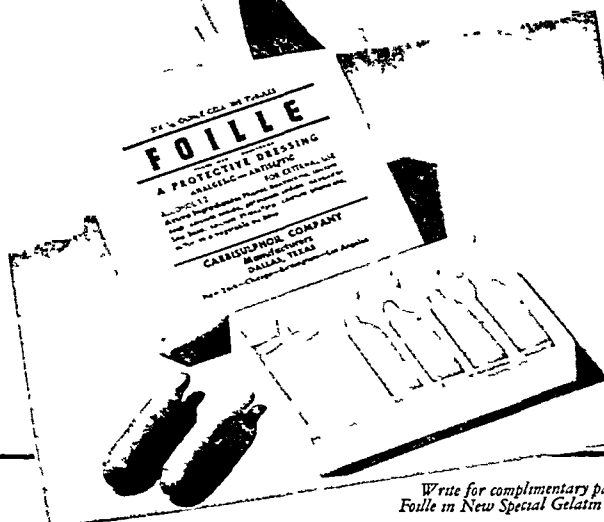


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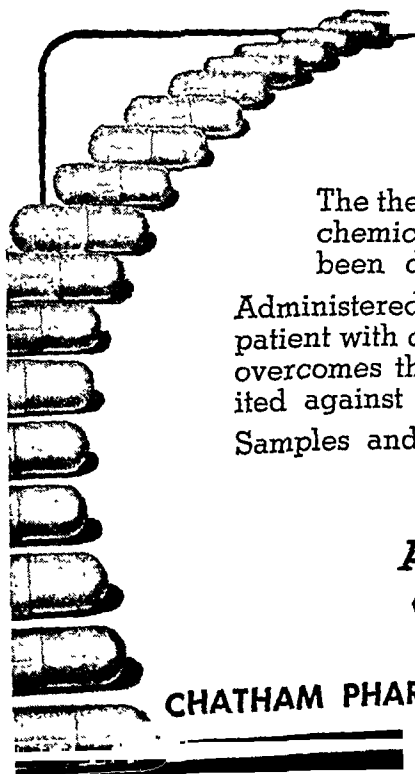
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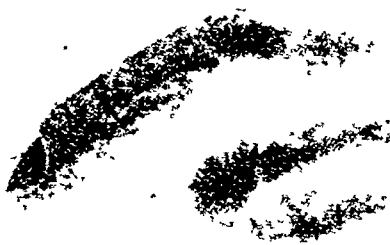
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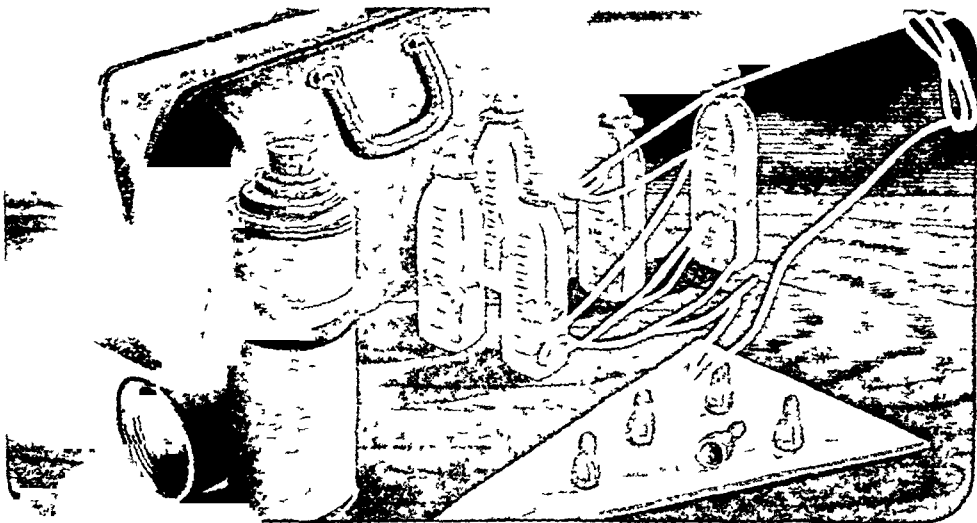
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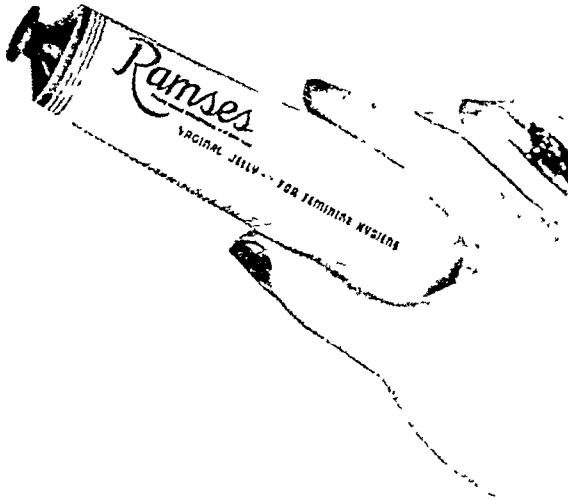
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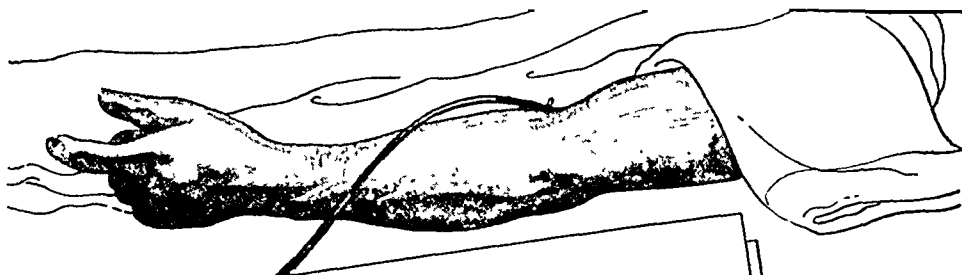
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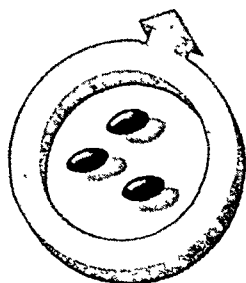
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†Fowler and Barer, "Rate of Hemoglobin Regeneration in Blood Donors." J.A.M.A., 118 421:1942.

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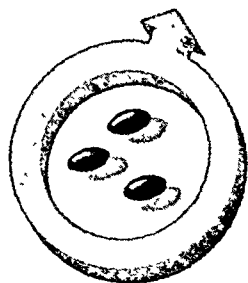
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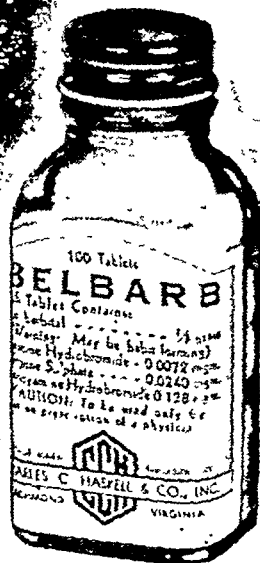
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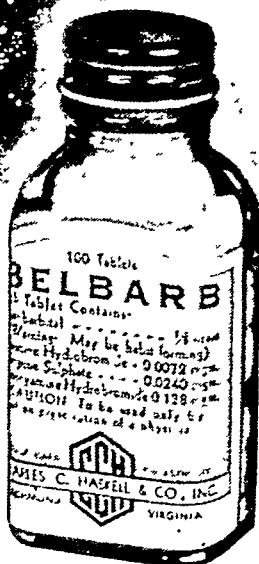
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NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 43

JUNE 15, 1943

NUMBER 12

Editorial

What Are the Facts?

The *Journal of the American Medical Association* in its issue of March 27, 1943, carried an editorial to the effect that "young available physicians in the large cities of the country, particularly those of the eastern seaboard," seemed unpatriotic and reluctant to volunteer for military service. The *Journal* said further, ". . . New York, Brooklyn, Boston, and some of the larger communities in the states of Connecticut, New Jersey, Pennsylvania, and California have failed even to approximate their quotas." We quoted parts of this editorial, with comment, in the April 15, 1943, issue of this JOURNAL, on the assumption that the J.A.M.A., and the national office of the Procurement and Assignment Service were reasonably accurate in their information. In our comment we called to the attention of our readers that "there are now in service from Brooklyn about 36 per cent of all of its physicians."

In the Supplementary Report of the Council, Part VIII, the Chairman of the War Participation Committee of the Medical Society of the State of New York under date of April 30, 1943, wrote:

"The latest information obtainable from the State Procurement and Assignment Committee is as follows:

Number of physicians from New York in Service on February 1, 1943.....	9,000
Additional listed since February 1	800 to 900
Total.....	9,800 to 9,900

New York quota for 1942.....	8,600
New York quota for 1943.....	2,100

Total..... 10,700

"It is evident, therefore, that New York has not only met its 1942 quota but is on the way to meeting its 1943 quota.

"P & A reports that practically all counties outside of New York City are stripped of every possible available physician. . . . In Kings County, there are 2,024 in service. Three hundred more are still being processed. Only 39 men under 37 were declared essential and there are only 63 men still available. . . . Richmond has been stripped to the last available man. . . . New York and the Bronx are fast approaching the same state, so very few more men can be obtained from New York State.

"At the start, in New York, 15,700 men were under 45 years of age. Of these, 9,800 to 9,900 are in service; 2,185 have been physically disqualified. The remainder includes the younger men essential in the full-time faculties in the nine medical schools, all the alien physicians, women physicians, physicians essential in hospitals, physicians essential in industry and in the mental hospitals, and it must in addition furnish the balance required for the armed services.

"With 43,000 physicians in the armed services, it will be seen that New York has furnished between 20 and 25 per cent of the total.

"It is believed that these figures definitely prove that New York is not the laggard state it has been accused of being, and that this State can be relied upon to furnish every available man who can possibly be spared for military service."

It does not seem probable that statistics available on March 27 and April 30 of the same year relative to conditions in the State of New York could differ so greatly. On March 27, "New York, Brooklyn, Boston . . . have failed even to approximate their quotas." On April 30, 9,800 to 9,900 New

York physicians were in service to meet a combined 1942-1943 quota of 10,700 medical officers, roughly 20 to 25 per cent of the national total of 43,000 physicians for the armed forces.

In this issue there appear (page 1112) statements from the Surgeons General of the U.S. Army, the U.S. Navy, the U.S. Public Health Service, and the National Procurement and Assignment Service, which the JOURNAL is glad to publish in aid of further recruitment of physicians. The statement from the Procurement and Assignment Service should be read in the light of our question of accuracy of figures. The opening paragraph states, "Four states—

New York, Connecticut, Massachusetts, and Nevada— were below 90 per cent of their quotas." This does not seem consistent with the figures we have just quoted as to New York State.

The patriotism and the performance of many young physicians of the State of New York have been publicly and apparently unfairly impugned. The indictment is a grave one and is not supported by the facts as set forth by the Chairman of the War Participation Committee of this Society in his official report. An error of this magnitude calls for rectification by the J.A.M.A. and the National Chairman of Procurement and Assignment.

The American Ferment

Speaking at a dinner to Dr. J. Stanley Kenney, president of New York County Medical Society, on May 19, Dr. Nathan Van Etten, past-president of the A.M.A., said, in part:

"The great melting pot of civilization, which is the United States of America, has often been overheated during the years of Dr. Kenney's experience.

"Modern medicine and the revelations of science have upset empiric traditions, so that he is now engaged in studying new therapies—new methods for restoring the sick to functional usefulness and new ideas to enlist community support in the prevention of disease.

"New social forces have risen to disturb medical evolution by violent explosions which are impatient of normal adjustment. Elements unfriendly to the medical profession have been in power for ten years, upsetting the peaceful progress of a great nation by erecting powerful bureaus, which rule by fascist decree; which do not serve the people, but who command the people to serve them.

"Although the medical profession has voluntarily enlisted fifty thousand of its young doctors in the service of the war emergency, it is reviled for lack of support of the whims of idealists who claim to be interested in new distributions of medical service.

"Mr. McNutt shakes his fist at the physicians of the country in June at Atlantic City, Frances Perkins calls them obstructionists on January 20, and Mrs. Roosevelt gnashes her teeth and tells doctors on the third of May that if they do not voluntarily conform to the wishes of autocracy that they will be compelled to do so.

"No longer are our elected representatives, whose wages are paid by the taxpayer—no longer

are they our servants, but they are our masters. No longer does the State serve us, but we slavishly serve the State.

"Let us not forget that this unfortunate situation is the result of fermentation by agitators who have long been working at every social level, and that widening cracks are appearing in the surface and in the foundations of our economic, religious, and social systems which may engulf us.

"Civilization is sick! It needs good doctors. Shall we be equal to the task of doing our part toward preventing complete destruction of what we have been proud to call American Democracy?

"The answer to this question is YES if we shall wake up and work."

The President of the Medical Society of the State of New York also said, in part:

"It was the medical profession in the first place, not only here but with the other doctors throughout the United States, that proposed and inspired and helped erect *every* hospital, every dispensary, and every clinic in this country in order that those of little or no means should receive good medical care. For the maintenance of these institutions *and* for the benefit of the patients the doctors then and through these 108 years gave their entirely free services. I often wonder, when I read, so carefully recorded in the annual reports of hospitals in this city, of the monetary offerings of trustees and other benefactors just how much the monetary appraisal would be at even minimum rates, of the free services rendered by the profession in the 26 institutions of this municipality as well as in the voluntary hospitals.

"In the prevention of the spread of contagious diseases, in the resistance to the entrance to this city from other shores of such plagues as cholera and yellow fever and typhus; in the response to the calls of the several wars affecting this country,

organized medicine here always gave a full response. . . .

"It is sad to admit that the important role of medicine in inaugurating and supporting so many measures for the health of the people has been forgotten or overlooked and the control assumed by bureaus of government and civilian groups.

"Already are there agencies to make premarital examinations of prospective men and wives; to render obstetric care, including prenatal and postpartum; to care for the infant, sick and well; to follow him through school age with general and special examination. They have dental service, nutrition, and transportation furnished by the government; we have government care for poliomyelitis, for tuberculosis, for mental diseases, for cancer and heart diseases. We have hospitals of cities, counties, states, and central governments.

"Only during the past decade or two has the doctor, absorbed in the welfare of his patient, buried in his books, or walking the hospital wards or the clinic, realized that developing nonmedical groups were attempting to control all phases of his life work. The incorporated bodies of great wealth, the professional social organizations, political divisions of our government found in the care of the sick opportunities for their well-intentioned, though so frequently harmful, efforts. Many of their proposals have been introduced in quiet insidious ways, even using such pretenses as special surveys or war needs. The federalization of our medical schools covering four years of tuition, one year of internship and an agreement by the student to remain in government service for "the duration," for six months after cessation of hostilities or for the pleasure of the President is a long stride toward government control of doctors. To that may so easily be added the control of existing hospitals, all these new hospitals, erected by the government and the future free care, *whenever* needed, of veterans and their families.

"There is no measure, no matter by whom proposed, that would really, permanently or temporarily improve the health of the people, that will not receive—as it always has—the support of the medical profession regardless of its effects on the individual physician. Sufficient experience, however, has already accumulated to show the weaknesses in so many of these plans, their dangerous effects in lowering the quality of medical care, and the retardation of the normal progress of science.

"Doctors, as a class, are but slowly realizing these present conditions. They have not given the time or the study to these vital ancillary branches of medicine, or the many increased duties imposed on the profession in its organized groups.

"For these studies, medicine today needs men of special aptitude, as leaders; men of ability in scientific medicine and possessed of knowledge of social and economic conditions; men of experience and distinction in hospital work and who

from private practice in the homes of the people have never lost 'the common touch. . . .'"

The *New York Times*.¹ sometime advocate of "sweeping changes" in the practice of medicine, said editorially in discussing recent proposals made to the House of Delegates:

"For its willingness to recognize the need of reform in medical practice the Medical Society of the State of New York deserves praise. Out of its promised deliberations some good will undoubtedly flow, even though some of the addresses delivered before its House of Delegates raise doubts. 'The tendency of hospitals to get into the practice of medicine' was criticized by one speaker, though it has been pointed out for years that the hospitals are admirably qualified to deal with the sick. There was also a demand that 'medical matters must be decided by medical men.' Certainly no one will quarrel with this demand if scientific procedures alone are meant; but the economic plans of industry, labor, welfare organizations, hospitals, and the public ought not to be ignored.

"The matter of medical reform will sooner or later become a political issue. It is far better that it should be attacked by organized medicine instead of by State Legislatures and Congress. . . ."

It appears from a report "Wartime Facts and Post-War Problems" made public recently by the Twentieth Century Fund, that two general objectives are sought by the American people for the postwar period, economic stability and national prosperity within a workable system of collective security and revived international trade. A pleasant prospect, surely, if it can be accomplished. How does the profession of medicine fit into it? What should be its function and practices in such a postwar world?

"The medical profession," said Dr. Louis Bauer, Speaker of the House of Delegates, in a preamble to a resolution establishing a Planning Committee for Medical Policies,²

"has been accused of being obstructionist. This is an unjust accusation, but we must admit we have been slow in planning for the future. We have been too content to sit back and wait until we are faced with definite problems and then endeavor to solve them, rather than try to anticipate them. . . . the danger we have to face in New York is not complete socialized medicine, but an extension of phases already in effect, under the aegis of lay control. . . . There are many

¹ May 5, 1943.

² Buffalo, May 3, 1943.

agencies using the war effort as a cloak to foster their pet schemes for further socialization of medicine, and what are we doing about it?

"Let us inform the public in no uncertain terms that we are in favor of good medical care for all with freedom of choice of physician; that methods will be found to bring that good care to all; that whatever changes are necessary to accomplish

this will be made, but that those changes will be carried out under the guidance of the medical profession and not by governmental or lay agencies; and that we have a program which will meet the situation and at the same time will protect those high standards of medical care which have made the United States the healthiest country in the world."

Intramedullary Infusions

Transfusions, intravenous therapy, and tests are among the pillars of modern medicine. Yet there are times when it is impossible to enter a vein. In small infants, in cases with extensive burns, and in conditions of extreme shock, urgent intravenous therapy often cannot be performed. Any method that serves the same purpose and performs the same function is a most welcome accessory adjuvant when a vein is not accessible.

Substances injected into the bone marrow cavity are rapidly taken up by the circulation in unaltered form.¹ Blood administered by this method restores blood volume as efficiently as transfusion does, and drugs act as quickly and effectively by this route as they do when they are administered intravenously. Furthermore, diodrast injected into the bone marrow outlines the renal pelvis as clearly as it does by the intravenous route. When saccharine is employed, the circulation time by the intramedullary route is the same as when the saccharine is injected directly into a vein.² Previous radiopacity and injection studies have demonstrated the prompt entrance of injected materials from the bone marrow into the large tributary veins.¹

The technic of intramedullary infusion has been fully described.³ In adults and older children the sternum is the site of choice. In

children under 3 years of age the sternal marrow cavity is too small for this purpose, but the upper tibia and lower end of the femur are adequate substitutes. Care must be taken that no air enters the bone marrow, especially in children. It is best not to give substances such as emulsions, which may be potential embolic particles, by the intramedullary method. Contraindications are cases of bacteremia, septicemia, and osteomyelitis. In the series thus far studied there have been no untoward local or systemic reactions.

A valuable method is offered whereby the benefits of intravenous therapy can be obtained when, for whatever reason, there is no available vein. With proper technic there seems to be no risk. Not only have we another valuable method of parenteral therapy but also a technic of performing important intravenous functional tests when a vein for this purpose is lacking. Intramedullary infusions give promise of being used on an extensive scale when knowledge of the technic becomes more widely disseminated.

1. Tocatins, L. M., O'Neil, J. F., and Jones, H. J.: J.A.M.A. 117: 1229 (Oct. 11) 1941.

2. Meyer, L. M., and Perlmutter, M.: Am. J. M. Sc. 205: 187 (Feb.) 1943.

3. Tocatins, L. M., and O'Neil, J. F.: Surg., Gynec. & Obst. 73: 287 (Sept.) 1941.

War Participation

The following four statements from the Surgeons General of the U.S. Army, the U.S. Navy, the U.S. Public Health Service, and the National Procurement and Assignment Service are published at the request of the National Procurement and Assignment Service. This is in effort to aid in the recruitment of physicians.—
Editor

Statement of the Surgeon General of the United States Army

The Army is increasing in size; more medical officers are required. New units are being formed and many new general hospitals are under construction at many points in the United States. Some basic training must be given to medical officers before they are assigned to purely medico-military duties.

For this reason, they are needed one or two months prior to actual assignment. For the protection of the health of the civilian population, the quotas for physicians must be fairly distributed throughout the country. Certain states are far behind; they will, it is hoped, do everything possible to furnish their quotas at once.

Statement of the Surgeon General of the United States Navy

In order to plan intelligently I have reviewed the personnel situation in the Medical Department of the Navy. There is a deficit of approximately 900 medical officers for the next six months, based on minimal requirements. The Bureau of Medicine and Surgery calls medical officers to active duty when billets are available, does not build up too large a reserve at any time. Consequently, procurement must go on in an orderly fashion, if we are to meet the demands that will be placed upon us as the offensive fighting develops. We cannot afford to have the deficit increase beyond its present level; if it does we will not be able to give first-class medical service to our wounded.

The Medical Department of the Navy is charged with maintaining the health of all the personnel of the Navy and the Marine Corps; in addition it must care for the dependents of the officers and men. We look to the medical profession of our nation to come forward with the available doctors that can be spared from civil life to aid in our military

necessity. In the main, the profession has responded nobly. There are some localities where this is not so. In those localities the medical profession should cause the pressure of public opinion to bear on all eligible doctors and thereby bring to their attention the seriousness of failing to do their patriotic duty.

The medical profession is faced with a challenge of furnishing medical service to the armed forces and to the civil population during the active state of war and in the postwar period, which we hope is not too far distant. Should the profession fail in either regard, many forces may develop that will destroy the practice of medicine as we know it. This would be disastrous and it is something that we cannot afford to allow to come about. In all seriousness, the doctors of medicine in the United States should take stock carefully of their own immediate situations and should give every assistance in planning to see that medicine plays its responsible part in this and coming years.

Statement of the Surgeon General of the U.S. Public Health Service

During the next twelve months, the Public Health Service will require approximately 600 medical officers for full-time active duty in the reserve commissioned corps. These physicians will be recruited on an average of 50 a month—25 for service in the U.S. Coast Guard, and 25 for general service.

In addition to the medical officers assigned to the Coast Guard, physicians are needed for duty in the marine hospitals and the medical program of the War Shipping Administration, as well as for detail to general public health work in state and local health departments, and for such specialized war programs of the Public Health Service as tuberculosis control, venereal disease control, industrial hygiene, and community medical services.

The Service also expects this year to commission some 5,000 physicians in the inactive reserve. These doctors will be available for active duty in the event of acute emergency in their own or nearby communities. They will not be called for active duty unless an acute emergency exists, and will be retained only for the duration of such an emergency. This recruitment of inactive officers is undertaken as a part of the cooperative program of the Public Health Service and the Office of Civilian Defense.

The needs of state and local health departments for physicians have increased greatly during the past year. In January, 1942, it was estimated that State and local health departments would need 600 physicians. As of January, 1943, the exact needs have not been determined, but the Public Health Service has, at the present time, requests from the States for 185 medical officers to be assigned to duty in war areas alone.

According to reports from State Procurement and Assignment chairmen, as of March 23, 1943, 286 additional doctors for civilian practice are needed in 176 counties located in 38 states. Another 22 counties in the same states report a shortage of physicians but do not specify the number needed. In the remaining 10 states, no needs were reported.

These 198 counties reporting immediate needs represent only 7 per cent of the 2,654 counties in the 38 states, and only 6 per cent of all counties in

the country. Nevertheless, it is apparent that civilian communities are feeling the pinch of the physician shortage increasingly, since experience has shown that local needs become acute before they are expressed in formal reports. In the joint studies made in 42 areas by the Public Health Service and the Procurement and Assignment Service, it has been determined that 59 physicians and 5 dentists, or 64 medical and dental personnel, are needed in these areas—an average of 1.5 per study. The Public Health Service has been requested to supply 13 of these physicians and dentists, or 23 per cent of the determined need.

On the basis of these 42 studies, it is estimated that 500 physicians and dentists will be needed in 332 areas to be surveyed in the coming fourteen months, or by June 1, 1944. It is anticipated that 80 per cent of these, or 400, will be supplied by voluntary relocation through the regular channels of Procurement and Assignment, and that the Public Health Service will be requested to assist in meeting the needs for the remaining 20 per cent, or 100 physicians and dentists. This may be done either through financial assistance to physicians desiring to relocate in areas requiring their services, or through assignment of Public Health Service personnel upon request of the proper authorities.

Although it is impossible to project with accuracy the 1943 needs of civilian communities, we must face the fact that the shortage undoubtedly will increase during and after the filling of the 1943 military quotas; and that the chances of meeting civilian needs, as well as replacing physicians who die or withdraw from practice because of disability, will correspondingly decrease. Furthermore, we cannot predict at this time the possible needs of certain rural areas, which now may be adequately supplied but which will require additional public health and medical services during 1943, should the government move a large number of farm families into these areas for the food production drive. It is believed that joint action of the Public Health Service and the Procurement and Assignment Service will serve to meet urgent needs in civilian communities.

Statement of Chairman, Directing Board, Procurement and Assignment Service for Physicians, Dentists, and Veterinarians

Figures are now complete on the 1942 quotas for supplying physicians of the various states. Forty states have exceeded the 100 per cent figure of their quotas. Five States were above 90 per cent of their quotas. Four states—New York, Connecticut, Massachusetts, and Nevada—were below 90 per cent of their quotas.

Nevada is the lowest state, but has a total quota of but 35 doctors. It has provided 23 and deserves special consideration because its population is thinly scattered over wide areas.

This statement would not imply any reflection on the patriotism of those members of the medical profession who have been marked available by the Procurement and Assignment Service in these three states and who have not sought a commission. I would only present the facts and let each one draw from these facts whatever deductions he individually chooses.

Certain unavoidable considerations must be faced in these figures. Four states failed to provide 90 per cent of their 1942 quotas of doctors for the services. Three of these states—New York, Connecticut, and Massachusetts—are Eastern Seaboard States and among the most populous ones in the Union. These populous States have large cities in them which now have more doctors per thousand persons than most other parts of the country. Largely because those doctors marked available by the Procurement and Assignment Service have not sought commissions, these states are below their quotas.

Unless more of the doctors found available for military service by the Procurement and Assignment Service in these cities apply for commissions in the armed forces with reasonable promptness, still more doctors must come from rural communities. This will greatly complicate the problem for those communities in their own and other states, since many rural communities are already none too well supplied with doctors. Such inequalities in medical service as now exist are in a considerable measure the result of the conditions herein stated and cause occasional problems of rural medical care which become practically insurmountable for the Procurement and Assignment Service with its present limited authority. With all these facts in mind, with the responsibility of medicine to the country and to itself such as it is, the quota figures particularly in New York, Connecticut, and Massachusetts should be brought up to par by an intensive effort of the state medical societies through their executive bodies, preferably by an organized state medical society campaign.

The provision of doctors for the armed forces is not only the special obligation of medicine but a responsibility which it acknowledges and accepts as its part in the war effort. Each state that has not met its 1942 quota will be kept informed of its position in relation to its quota and its position in relation to other states. Otherwise, a state is denied the pardonable pride of satisfaction in meeting its quota or pampered against facing a distasteful position in relation to other states.

Diagnosis

CLINICOPATHOLOGIC CONFERENCES

FOURTH MEDICAL DIVISION OF BELLEVUE HOSPITAL

Date: May 20, 1943

Conducted by: Dr. Arnold Koffler

DR. CHARLOTTE T. PEIRCE: This was the fourth Bellevue admission of a 60-year-old white woman. In 1928 the patient had a radical mastectomy at another hospital for carcinoma and cyst of the left breast.

She was admitted to Bellevue Hospital in 1939 with a history of a painless lump in the right breast. At operation the frozen section was reported to show malignancy and a radical mastectomy was performed. The final pathologic diagnosis, however, was chronic interstitial mastitis.

The patient was readmitted to this hospital in July, 1942, with a history of severe precordial pain and dyspnea of one day's duration. Physical signs, laboratory findings, and serial electrocardiograms showed evidence of an acute myocardial infarction of the posterior wall. The course of her illness was uneventful and the patient was discharged to the Clinic after two months' bed rest. She felt well until four weeks before the final admission, when she noted dyspnea and mild precordial pain on exertion. Two weeks later the precordial pain became more severe and she developed a cough that was productive of small amounts of mucoid sputum which became blood-tinged two or three days prior to admission. There was no history of orthopnea, nocturnal dyspnea, or edema of the extremities. She had never taken digitalis. Review of systems was otherwise negative. The past history included, in addition to the above facts, one admission for erythema multiforme following a sore throat in 1939. The family history was noncontributory.

On admission, the patient's temperature was 100 F.; pulse, 66; respirations, 32; and the blood pressure, 98/68. Physical examination revealed an obese, pale, apprehensive white woman, moderately dyspneic and orthopneic, with a frequent dry cough. The head, eyes, ears, nose, and throat were essentially negative. The neck was supple; the trachea was in the midline. There was no palpable adenopathy, but there was slight venous distention with a positive Mackenzie. There were bilateral radical mastectomy scars with no palpable axillary nodes. Examination of the right lung disclosed

impaired percussion at the base with harsh breath sounds and a few moist rales. The left lung was hyper-resonant throughout and a few medium moist rales were heard in the left axilla. The heart was enlarged to the left, with regular sinus rhythm; the P.M.I. was not felt. The heart sounds were distant and of poor quality. No murmurs were heard. On examination of the abdomen there was noted slight tenderness in the right upper quadrant; no organs or masses were palpable. The pelvic and rectal examinations were negative. The extremities showed one plus edema and bilateral varicose veins. The reflexes were equal and active.

Laboratory Findings on Admission.—The white blood count was 15,750 with 64 per cent polymorphonuclears, 5 per cent transitionals, 24 per cent lymphocytes, 7 per cent monocytes, and 1 per cent basophils. The hemoglobin was 11.3 Gm., with a red blood count of 4,200,000. The urine was clear, with specific gravity of 1.027, alkaline reaction, a faint trace of albumin, and no sugar; microscopic examination showed an occasional white blood cell. The blood non-protein nitrogen was 43 and the blood Wassermann was negative. A roentgenogram of the chest revealed the heart to be enlarged in all diameters, with widening of the supracardiac aorta and marked congestive changes in both lungs.

Course.—The patient ran a febrile course throughout her hospital stay, with her temperature ranging from 98.6 F. to 102 F. The pulse rose to 106 the day after admission, and the patient was digitalized and put on regular cardiac routine. At the same time the temperature rose to 102 F. and because bronchopneumonia was suspected, she was given sulfadiazine for five days, receiving a total of 26 Gm. The patient did not improve because the temperature and white blood count remained elevated and the drug was cut. Urinalyses remained negative except for a trace to a 1 plus reaction for albumin. Two weeks after admission the patient developed pain over the left chest and precordium which was nonradiating. The heart sounds remained of poor quality, but a gallop rhythm was noted. The blood pressure was 94/70; the white blood count was 14,250 with 65 per cent polymorphonuclears; the tempera-

ture was 100 F., and the pulse, 84. The liver was palpable two fingerbreadths below the costal margin. The erythrocyte sedimentation rate was 9 mm. per hour. The electrocardiogram showed active myocardial changes of Q23, T23 type.

On March 30, the patient developed acute parotitis on the right side, a condition which was treated with radium packs and which subsided completely within five days. One week later discrete and confluent purpuric spots appeared over the sacrum and dependent surfaces of both arms and legs. The platelets numbered 160,000; tourniquet tests were negative, and the bleeding and clotting times were normal. At the same time the patient developed acute thrombophlebitis of the right leg. She had no further precordial pain. The course was progressively downhill. The patient became more dyspneic; signs of fluid appeared in the right chest and thoracentesis on April 10 yielded 200 cc. of grossly blood fluid with specific gravity of 1.015; culture was negative. Thoracentesis was repeated on April 13, yielding 1,200 cc. of serosanguineous fluid with specific gravity of 1.015, 1,250,000 red blood cells, and 6,000 white blood cells with 70 per cent polymorphonuclears. There was no improvement; the dyspnea increased and on April 15 the patient developed acute pulmonary edema. She died on April 16, the thirty-eighth hospital day.

Discussion

DR. ARNOLD KOFFLER: The case today presents superficially a very simple cardiac problem—namely, one of acute right coronary thrombosis and infarction of the posterior basilar type with septal involvement and subsequent congestive failure. Underlying this problem, however, are a number of complicating factors not satisfactorily explained on such a simple basis. Although on the previous admission, the diagnosis of an acute infarction was substantiated by the electrocardiograms, there was a three weeks' febrile period with pulmonary signs suggesting the presence of a bronchopneumonia. The patient, however, made a fair recovery and was discharged.

The patient was readmitted nine months later with a history of gradual onset of congestive failure characterized by exertional dyspnea, cough, and precordial pain. The cough increased and expectoration became blood-streaked. The hospital stay was characterized by a long febrile course with leukocytosis and pulmonary signs which did not respond satisfactorily to the administration of sulfadiazine. It was, therefore, necessary to search for other possibilities to explain the symptoms. The answer may lie in the

fact that in cardiac patients, particularly those with limited activity and signs of congestive failure, the clinical picture of chest pain, cough and bloody expectoration should lead us to suspect the possibility of hemorrhagic pulmonary infarction. This is the condition most commonly mistaken for bronchopneumonia since the co-existence of pulmonary congestion seems to be a necessity in the production of such infarction. It has been noted that in the presence of a good heart and adequate pulmonary circulation, embolization to a medium-sized vessel does not produce infarction. I am, of course, not referring to closure of a main vessel, which produces either sudden death or acute right heart failure with peripheral circulatory collapse.

The origin of embolization in this patient may have been from the right heart, but it is much more likely to have come from the peripheral vessels for the following reasons: (1) it is the commonest cause; (2) myocardial infarction diagnosed on the previous admission and possibly on this admission would produce a mural thrombus in the left ventricle. It would not have embolized to the pulmonary circuit; and (3) varicosities of the lower extremities were present and definite thrombophlebitis was noted during the terminal phase of her illness.

Contributing to the diagnosis of hemorrhagic infarction was the presence of a hemorrhagic pleural effusion. Infarction is probably the commonest cause of such an effusion, with the exception of malignancy. Leukocytosis and fever may accompany this condition.

In mentioning malignancy we must not overlook the history of double mastectomy in this case—the first in 1928, the other in 1939. While we must assume that the first was done for malignancy, the second tumor was definitely proved nonmalignant in spite of the suspicious frozen section taken at the time of operation. I believe we are fairly safe in assuming that metastasis to the lung was not likely so long after the first operation, and if the microscopic picture of the second tumor was correct, there would be no cause to suspect a metastatic lesion from that source.

It is unfortunate that two laboratory procedures were apparently omitted—namely, the taking of blood cultures to rule out blood stream infection and the use of icteric indices to help in the diagnosis of the pulmonary infarction.

Two clinical episodes which occurred during the last two weeks of the patient's illness must not be overlooked. First was the occurrence of an acute parotitis, which always is of grave prognostic significance in the aged except in the epidemic or postoperative form. The second

condition was the presence of a terminal purpura which may well have been conditioned by the application of radium for the treatment of the parotitis—however small the dose.

In conclusion, we may visualize a woman who has sustained the accident of acute cardiac infarction. Following a period of comparative comfort, signs of congestive failure became apparent. This impaired reserve predisposed the patient to peripheral and pulmonary congestion. An ideal situation was therefore created for the production of a thrombus in the lower extremities and embolization to the lungs. This further embarrassed the already exhausted circulation, and death was inevitable.

DR. MAX TRUBEK: I saw this patient throughout her final admission. She came in with symptoms suggesting another episode of cardiac infarction. There was clinical evidence of extensive myocardial damage—obviously severe nutritional disturbance of the myocardium. The apical sounds were of extremely poor quality and there was a persistent gallop. I felt that pulmonary pathology was due to infarction, most likely embolic from the iliac or femoral veins. Confluent petechiae appearing after radium application seemed to be due to some capillary toxic trauma. I do not feel that the question of metastatic malignancy arises in the differential diagnosis. At this late date, fifteen years after the removal of breast carcinoma, other more obvious evidences of metastases would have also been manifest.

DR. CHARLES H. NADLACK: The temptation in this case is to consider the possibility of a pleural carcinoma of the bouton-en-chemise type, but the lapse of time precludes that. We have used radium packs in parotitis on several occasions with good effect and without any unfavorable influence on the blood picture.

Presentation of Pathology

Gross Findings.—DR. SEYMOUR TENZER: Numerous petechial and purpuric hemorrhages were conspicuous in the skin of both legs and over the dorsal aspects of both hands and feet. The mastectomy scars were well healed and contained no signs of recurrence of the original tumors. Moderate edema was present in the lower extremities and dependent portions of the body.

The peritoneal cavity was free of fluid but the right pleural sac contained about two liters of greenish-yellow opalescent fluid. The left pleural sac was free of adhesions or fluid. The lungs overlapped in the midline, and the right lung was bound down by numerous adhesions. Some of the pleural exudate was loculated over the right lower lobe. This lobe was almost completely

collapsed. The visceral pleura of both lungs was the seat of fibrinous deposits, more marked over the right lung. The right middle and lower lobes were the seat of multiple hemorrhagic infarcts of various sizes. The branches of the pulmonary artery supplying these areas contained thrombi of various colors ranging from red to yellow. The right upper lobe was crepitant but the rest of the lung was airless. On section, bloody fluid oozed from the cut surfaces. The left lung was crepitant except for the basal portion of the left lower lobe, where multiple wedge-shaped infarcts were present. Yellowish thrombi or emboli were demonstrated in the pulmonary arterial branches to this area.

The heart was moderately enlarged, weighing 470 Gm.; the increase in size was due to enlargement of the left ventricle. The epicardial surface was smooth and transparent, and the epicardial fat was only slightly increased over the atrioventricular sulcus and over the right ventricle. The right auricular appendage contained small, firmly attached yellowish-red thrombi overlying the pectinate muscles. Visible through the endocardium of the right ventricle, a yellowish, roughly C-shaped area of coagulation necrosis was found in the septum. The overlying endocardium was unaltered. The pulmonary conus was dilated, but no thrombi or emboli were found in the pulmonary artery or its main branches. In the left side of the heart three main areas of infarction were encountered—one apparently healed in the posterior wall behind the posterior leaflet of the mitral valve. This was of indefinite outline and appeared to be composed of multiple confluent areas of fibrous replacement. The second was a well-healed area of fibrous replacement which was located at the apex. Its walls were extremely thin. The whole area was 3 cm. in diameter in its broadest portion. The third area corresponded exactly to the zone of necrosis seen in the right side of the septum. It was quite irregular in outline, varying from 1 to 4 cm. from side to side. Adjacent to it, minute thrombi were attached among the trabeculae carneae. The atrioventricular and pulmonary valves and their leaflets were free of notable changes. The cusps of the aortic valve were moderately sclerotic but freely movable. The coronary vessels had patent ostia, but from their inception they exhibited progressively severe atherosclerosis of concentric and eccentric distribution. The anterior descending branch of the left coronary artery contained a fresh red thrombus, 1½ cm. from its origin. It filled the vessel at a point of great narrowing due to atherosclerotic deposits. The circumflex branch of the left coronary artery and its smaller branches exhibited narrowing due to some sclerosis, but

this was more patchy. The right coronary artery was patent for 4 cm. from its origin but then was occluded by an organized thrombus and large atherosclerotic plaques for a distance of 7 cm. Distal to this point the vessel was collapsed and its posterior branch was very minute although still demonstrably patent. The coronary veins were not remarkable.

The kidneys exhibited a moderate degree of arteriolar nephrosclerosis. The other organs were not remarkable except for chronic passive congestion of the spleen and liver. In the fat of the pancreas, a small area of fat necrosis (1 to 2 mm.) was encountered. In the right external iliac and femoral veins a reddish thrombus was found occluding the lumen. Limitations of the autopsy prevented further determination of its extent into the veins of the right leg.

Microscopic Findings.—DR. IRVING GRAEF: Studies of the sections of the lung disclosed evidence of old as well as recent thrombotic embolic occlusion of the medium-sized branches of the pulmonary artery. Canalized vessels as well as freshly occluded ones were present in multiple blocks. Besides hemorrhagic infarction, microscopic foci of lobular pneumonia were encountered in the sections of the right upper lobe. Sections including the inflamed pleura disclosed evidence of early organization of fibrinopurulent exudate. Sections through the zone of septal infarction of the myocardium revealed a partly organized old infarct and well-attached mural thrombi between the trabeculae carneae. Sections of the coronary vessels confirmed the gross impression of fresh thrombosis of the left coronary artery and old canalized thrombosis of the right.

Comments

DR. IRVING GRAEF: This patient aptly illustrates the vicious circle which coronary occlusion and myocardial infarction may begin, for congestive failure ensued and promoted thrombosis in the veins of the systemic circulation. Right auricular thrombi may also be ascribed to the failing heart, and this together

with the venous thrombosis furnished ample sources for pulmonary embolization and hemorrhagic infarction. Further complicating the picture was the secondary infection of the pleural sac, probably due to secondary development of lobular pneumonia. On its own account, pulmonary embolization may well have contributed to the progressive coronary thrombosis by the physiologic insult leading to shock-like states with reduced cardiac output, lowered systolic blood pressure, and reduced coronary flow. The myocardial ischemia already initiated by the coronary sclerosis in a hypertensive subject thus became critical, leading to necrosis of the muscle. The fresh thrombus in the left coronary may well have been a terminal event, for no fresh areas of myocardial necrosis were encountered.

The purpura observed at death is unexplained. Thrombopenia was not demonstrated and nothing distinctive was disclosed in the hemopoietic organs at necropsy.

Anatomic Diagnoses

Myocardial infarction, recent and old, involving the interventricular septum, the posterior wall of left ventricle, the left ventricular apex, and the tip of the left posterior papillary muscle.

Coronary thrombosis, recent (left) and old (right), with canalization.

Severe atherosclerosis of coronary vessels.

Mural thrombi in right auricular appendage, and endocardium of left ventricle.

Dilation and hypertrophy of the heart, chiefly of left ventricle.

Bilateral multiple pulmonary emboli.

Multiple bilateral hemorrhagic infarcts involving right middle lobe, right lower lobe, and left lower lobe.

Arteriolar nephrosclerosis.

Thrombosis of femoral and external iliac veins (right).

Purpura.

Local fat necrosis of pancreas.

Adentia.

IMPROPER USE OF THE WORD ETIOLOGY

To the Editor:—One of the commonest errors in medical writing is in use of the word "etiology." The precise meaning of this word, derived from the Greek words *aitia* and *logos*, is the science or study of the causation. It is therefore incorrect to say the "etiology of the disease is unknown." Authors who make this common error intend to say that the cause of the disease is unknown and not that the science or study of causation is unknown.

Similar mistakes are often made with other words

ending in "-logy." There is no excuse for the outrageous expression "there was no pathology," as the author who writes in this manner would not dream of saying "there was no ophthalmology" in place of stating that he found no abnormal changes in the eyes. Perhaps the worst example of medical jargon is the expression "the patient has a negative serology." Some writers even speak of "negative serologies."—Howard Fox, M.D., New York City, in J.A.M.A.

Case Report

PERSISTENT TACHYCARDIA IN A SURVIVOR ADRIFT AT SEA FOR EIGHTY-THREE DAYS

ARTHUR J. HORTON, LT. COMDR., MC-V (S), USNR

THE following preliminary case report concerns a survivor who drifted for eighty-three days on an open raft.

Case Report

The patient, B. I., a 20-year-old seaman second class, USNR, was a member of an armed guard crew of a medium-sized Allied passenger ship, which was torpedoed and sunk at the beginning of November, 1942, in tropical waters. He and four others obtained a standard drum-type 9-by-10-foot life raft, equipped with oars; a 9-by-10-foot canvas cover; 10 pounds of hardtack; 9 cans of evaporated milk; 2 pounds of chocolate; 2 small paper cartons of biscuits; and a cask containing 10 gallons of fresh water. This food was carefully rationed, but by the sixteenth day all of their stores had been used.

With their canvas cover, they were able to catch enough water to maintain themselves, for frequent showers occurred during most of their stay on the raft. By means of a slip noose, they caught fish and also birds which alighted upon the raft occasionally, but at one time they were without food for five days. Upon catching a fish or bird, they first ate the liver, heart, muscular tissue, and finally the intestines. Snails clinging to the sides and bottom of the raft were also eaten. Two of the men aboard the raft had great difficulty in eating raw meat. They became nauseated frequently, and during the latter part of December they both developed frequent, loose stools, accompanied by marked tenesmus. These two men became progressively weaker and began to pass bloody stools. One man died on the sixty-sixth day and the other of the seventy-seventh day.

During his entire stay on the raft, the patient had only two bowel movements, both of a thin, oily consistency.

Upon being brought aboard the patrol ship, the patient was treated by the chief pharmacist's mate aboard that vessel. He presented a picture of extreme emaciation, his weight being between 75 and 80 pounds. He had no complaints except that of great hunger. His temperature was normal and his pulse rate 76. It was noted that no bleeding of the gums was present and that his teeth were firm. No evidence of joint hemorrhage existed. Ulcers, crusted and partially healed, were found on the feet and legs. Two pressure sores were present on the buttocks. The abdomen, although not markedly sunken, was rigid. The anal sphincter was completely relaxed.

He was put to bed, given 4 ounces of peach juice, 2 ounces of pineapple juice, and a chocolate bar. The following day he slept most of the morning, being given 4 ounces more of fruit juice. Water was given freely. About noon, he voided 200 cc. of clear urine. The pulse rate varied from 72 to 76, and the respiratory rate was normal. During the afternoon, several bouts of vomiting occurred, producing a thin, bile-colored vomitus. An enema of mineral oil and glycerin was given, with a slightly

bloody return. One hour later, a bowel movement occurred, slightly bloody, with hard round stools about 1 cm. in diameter. A proctoclysis of dextrose, 5 per cent, and sodium bicarbonate, 2 per cent, was begun, 4,000 cc. being absorbed during the next twelve hours. During this time the patient's temperature varied from 99.4 to 100 F., his pulse varying from 86 to 90. During the following day, milk toast, poached eggs, milk, corn flakes, creamed peas, and puréed carrots, all in small quantity, were administered frequently. By the evening of the third day, the patient was retaining food well, and two days later he retained a regular meal, his temperature being normal, with a pulse varying from 80 to 94. He passed several semisolid stools during this time.

Thirteen days after being picked up by the patrol vessel, the patient was brought to this dispensary. The other two survivors, who had practically the same treatment aboard the patrol vessel, were taken to another institution.

Upon admission, the patient's chief complaint was palpitation, coupled with a slight frontal headache. The skin was deeply tanned; the arms, legs, and chest were emaciated, but the abdomen was scaphoid and not remarkably sunken. Scars were present over both feet and legs. The skin of the face showed some crusting and a branny desquamation. The temperature was 99 F. Pupillary reflexes were normal; no bleeding of the gums or gingivitis was present. The mucous membranes of the mouth and throat were pale but otherwise not remarkable. Examination of the tongue showed it to be of normal size, but reddened and roughened, with smooth whitish lesions present on the ventral surface and frenum. The thyroid was not enlarged. Examination of the chest was negative, except for sunken supraclavicular and intercostal spaces. The pectoral muscles showed a good deal of wasting. Cardiovascular findings revealed the apex to be in the sixth left interspace about 9 cm. from the mid-sternal line. A faint apical systolic murmur was present. The rate was 120 per minute with a blood pressure of 124 mm. systolic and 80 mm. diastolic. Abdominal findings were not remarkable; the liver and spleen were not palpable. The abdominal reflexes were normal. Aside from the scarring previously described and emaciation of the muscles, the extremities showed nothing of note. The knee jerks were active; no Babinski reflex or ankle clonus was present.

The hemoglobin was 82 per cent (H); the red blood cells 2.9 million per cu. mm. Leukocytes numbered 6,150, with 46 per cent polymorphonuclears, 48 per cent lymphocytes, 2 per cent basophils, 1 per cent eosinophils, and 3 per cent mononuclears. The urine was cloudy, light amber color, with a specific gravity of 1.020, the pH being 7.5. Albumin and glucose were not present; microscopic examination, with the exception of numerous motile bacilli, was negative. The patient was placed on a full diet, with the addition of 12 ounces of fresh orange juice, 1 Gm. of ferrous sulfate, 30

mg. of thiamin chloride, as well as multiple vitamin capsules containing small quantities of vitamins A and D, thiamin chloride, riboflavin, ascorbic acid, and nicotinic acid amide.

During the next three days, the tachycardia persisted; the rate varying from 100 to 120. It was believed that a vitamin B complex deficiency may have caused this, but excessive smoking could also have been a factor. The patient's bowel movements were regular, and he had no other complaints. He continued to run a fever, with the temperature varying from 98.2 F. in the morning to 100 F. during the late afternoon. On the morning of the seventh day following admission, the patient complained of a sore throat and generalized malaise. The throat was reddened and injected, no exudate being present. The lesions described on the under surface of the tongue and frenum had disappeared. Examination of the chest was negative. The following day the throat symptoms subsided, but the tachycardia still persisted. At times the patient complained of a feeling of constriction in his throat. No thyroid enlargement was noted. His blood pressure was 124/70, with an apical rate of 118 per minute. The murmur previously described had by now disappeared. Phenobarbital, $\frac{1}{2}$ grain, was given after each meal.

The hemoglobin was 84 per cent (H); the red blood cells 3.8 million per cu. mm.; the white blood cells 4,400, with 60 per cent polymorphonuclears, lymphocytes 39 per cent, and monocytes 1 per cent. The Kahn reaction was negative. The body weight, which had been approximately 100 pounds on admission, had increased by the fifth day to 116 pounds. Two days later the patient weighed 118 pounds.

During the next five days, the patient's temperature remained at from 98.4 F. to 99.2 F., with the apical rate varying from 100 to 120. The rhythm remained constantly regular. No signs of rheumatic infection appeared. His smoking had been cut down to a marked degree, only 5 cigarettes daily being permitted. Because he had been on a diet of uncooked fish and birds prior to being rescued, stool examinations were made frequently in an effort to detect intestinal parasites. None was ever found, however. Urine analysis was repeatedly negative.

The patient's appetite was excellent. By the nineteenth day of his stay here his hemoglobin was 94 per cent, the red blood count was 4.85 million; the white blood count 9,550, with 66 per cent polymorphonuclears, 31 per cent lymphocytes, 1 per cent basophils. Phenobarbital was discontinued at this time, for it evidently had no effect on the tachycardia. His weight had reached 122 pounds by this time. A chest x-ray was negative, and the cardiac shadow was of normal size and configuration.

On his twenty-third day the patient was transferred via air transport to the National Naval Medical Center for further disposition.

Comment

This patient was in excellent physical condition prior to being cast adrift. It appears almost incredible that a human being could survive for this length of time, especially upon the food that the survivors were able to obtain. The fact that no clinical signs of scurvy or of any marked vitamin deficiency existed is important. There are several points in explanation of this. To begin with, the crew were in tropical waters in a season when frequent rain squalls occurred, and so they were able to obtain sufficient water for their needs. The mean temperature was fairly constant; and to some extent they were able to protect themselves from the sun by their canvas cover. The course of their drift led them through waters where many tropical fish and birds are found, and by eating these uncooked they probably obtained some vitamin content, especially from the livers. No severe storms occurred during their period of drift.

I am unable to explain the low-grade fever and tachycardia which this patient exhibited. One factor may have been an increased metabolic rate because of the ingestion of a full diet after a long period of semistarvation. The author had an opportunity to examine the other two survivors about two weeks after their arrival at this port, and in both instances a tachycardia of from 110 to 130 was present with a normal blood pressure. Physical examination of both was otherwise negative.

The fact that none of these men developed signs of "immersion foot" during their stay on the raft seems to indicate that in tropical or semitropical waters this complication, which has had such serious effects in North Atlantic waters, is not a grave danger. The peripheral circulation in all three cases was excellent when they were examined after arriving at this port.

It is believed that small frequent feedings, with measures to combat dehydration, is the best early treatment for advanced malnutrition of this type. Metabolism determinations after two weeks of a full diet would have been interesting, but unfortunately no apparatus was available either for this or for blood chemistry determinations.

The author wishes to commend Chief Pharmacist's Mate Raymond Clifton Buckley, USN, of the escort vessel which sighted the raft, for his prompt and effective care of these patients when they were picked up and for his aid in the preparation of this paper.*

*NOTE: The opinions and assertions contained in this report are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

INFLUENZA STUDY PROGRESSING

Dr. Norman Plummer, of Cornell Medical College, announced recently that the first step in the search for vaccines to prevent influenza has been completed.

Under the direction of the Army influenza com-

mission, 3,000 vaccinations have been made, and specimens for the immunity test have been obtained from more than 500 individuals.

Records will be kept of every respiratory infection that occurs in any of the vaccinated men.

Case Report

THROMBOPHLEBITIS MIGRANS DISSEMINATA: REPORT OF A CASE IN WHICH GANGRENE OF A BREAST OCCURRED*

Observations on the Therapeutic Use of Dicumarol (3, 3' Methylenebis (4-Hydroxycoumarin))

EDWARD P. FLOOD, M.D., MILTON H. REDISH, M.D., STANLEY J. BOCIEK, M.D., and
SHEPARD SHAPIRO, M.D., New York City

THROMBOPHLEBITIS migrans usually occurs locally, the process remaining confined to one or both of the lower extremities. Less frequently, it extends to other veins. In rare instances it becomes widespread, involving distant venous channels, including those of the viscera. The clinical picture, consequently, is determined by the site and the extent of the lesions, superficial veins revealing the usual picture of thrombophlebitis while more generalized spread gives rise to variable toxemia and symptoms referable to the respective tissues affected.¹⁻⁴

The cause of the disease is often obscure although certain features stand out to characterize the entity. The phlebitic process, especially of the superficial vessels, unpredictably arises in different areas irregularly and frequently undergoes periods of exacerbation and remission. Although of relative benignity with respect to life, it is nevertheless generally responsible for periods of incapacitation of months' duration.

We have studied a case of thrombophlebitis with migratory and disseminate lesions, in which the clinical picture and response to anticoagulant therapy were of sufficient interest to warrant a separate report.

The *in vivo* anticoagulant Dicumarol (3,3'-methylenebis (4-hydroxycoumarin)) was used. It induces a state of prothrombinopenia, which is measurable by the prothrombin clotting time.⁷

The method used for prothrombin assay has been previously described.⁸ It includes estimation of the prothrombin clotting time of whole (100 per cent) and diluted (12.5 per cent) plasma. The rationale and clinical interpretations have been set forth in the earlier communication.⁸

Case Report

A 49-year-old white housewife was admitted to St. Francis Hospital on April 21, 1942, complaining of severe pain in the right chest of one day's duration. She had had several attacks of "phlebitis"

From the Medical Service of St. Francis Hospital, New York City.

* This is the third paper of the series "Studies on Thrombolization." The first paper is reference 9, the second, reference 21.

ACKNOWLEDGMENTS: The authors gratefully acknowledge the assistance of Dr. Roy S. Nelson in the preparation of the pathologic tissues. The Dicumarol was supplied through the kindness of Dr. K. K. Chen of Eli Lilly & Co., Indianapolis, Indiana. Miss Frances Kaufman gave technical assistance in the prothrombin estimations.

in her legs during the past fourteen years. In 1936, following the birth of her youngest child, she was confined to bed for thirteen weeks because of an attack of a similar condition. For about two months prior to the present admission she had had frequent pains in the lower extremities, especially in the right leg and thigh, where gradually increasing swelling was also noted. The day preceding her admission to the hospital, she was seized with sudden, severe sharp pain in the right side of the chest. This was not accompanied by cough or hemoptysis.

On examination the patient was found to be moderately obese. Her breathing was rapid and shallow; her face was flushed and portrayed great anxiety.

Expansion of the right side of the chest was limited. Over the base there were elicited dullness, distant bronchovesicular breath sounds, large and small moist rales, and a pleuritic friction rub. The left side of the chest was clear throughout.

Examination of the abdomen revealed diffuse tenderness on deep pressure over the lower quadrants.

Both feet and legs were cold to the touch. The superficial veins appeared prominent and those on the right side were thickened, tender, and surrounded by an area of redness, especially throughout the greater part of the saphenous tract. The limb was severely edematous throughout its entire length. Dorsalis pedis pulsations were palpable on both sides. The temperature was 101.6 F.

The diagnosis on admission was thrombophlebitis of the right saphenous vein with extension to the right iliac vein; infarction of the right lung was also included in the diagnosis.

The friction rub was heard only on the day of admission, although the other physical signs continued. Sulfadiazine was administered, and within three days the temperature fell to normal. Because of signs of intolerance—erythematous eruption, nausea, vomiting, and rise in temperature to 101.6 F.—the drug was withdrawn on the tenth hospital day. The abnormal physical signs in the chest persisted.

On May 9 the Dicumarol therapy was started (Fig. 1). Within three days the leg became softer, and during the succeeding two days the edema of the entire limb diminished markedly. The temperature remained below 100 F., in the interval between May 11 and 20. The physical signs in the right side of the chest altered slightly. On May 22 Dicumarol was discontinued, following which the prothrombin time gradually decreased. One week later these values approximated normal (Fig. 1).

On May 24 the temperature rose to 104 F., and on the next day there were elicited over the base of

mg. of thiamin chloride, as well as multiple vitamin capsules containing small quantities of vitamins A and D, thiamin chloride, riboflavin, ascorbic acid, and nicotinic acid amide.

During the next three days, the tachycardia persisted; the rate varying from 100 to 120. It was believed that a vitamin B complex deficiency may have caused this, but excessive smoking could also have been a factor. The patient's bowel movements were regular, and he had no other complaints. He continued to run a fever, with the temperature varying from 98.2 F. in the morning to 100 F. during the late afternoon. On the morning of the seventh day following admission, the patient complained of a sore throat and generalized malaise. The throat was reddened and injected, no exudate being present. The lesions described on the under surface of the tongue and frenum had disappeared. Examination of the chest was negative. The following day the throat symptoms subsided, but the tachycardia still persisted. At times the patient complained of a feeling of constriction in his throat. No thyroid enlargement was noted. His blood pressure was 124/70, with an apical rate of 118 per minute. The murmur previously described had by now disappeared. Phenobarbital, $\frac{1}{2}$ grain, was given after each meal.

The hemoglobin was 84 per cent (H); the red blood cells 3.8 million per cu. mm.; the white blood cells 4,400, with 60 per cent polymorphonuclears, lymphocytes 39 per cent, and monocytes 1 per cent. The Kahn reaction was negative. The body weight, which had been approximately 100 pounds on admission, had increased by the fifth day to 116 pounds. Two days later the patient weighed 118 pounds.

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Fig. 3. Photomicrograph of breast, showing venous thrombosis and hyalinization. The interstitial hemorrhage is prominent. The artery is unaltered.

The arterial supply of this gland arises from three sources; hence, it is difficult to visualize the cause as being solely of arterial (ischemic) origin. The microscopic sections showed organizing venous thrombosis with intact arterioles. In addition there was interstitial hemorrhage. It is not clear how these phenomena singularly or collectively could have induced the gangrenous process. The mechanism believed to be responsible for gangrene in association with other forms of thrombophlebitis does not appear to apply in this case^{11,12,13} although we feel that there must have been some relationship because of their common denominator, the phlebitis.

Gangrene has not been observed in animals or man after the administration of Dicumarol, including those instances in which hemorrhage was induced.¹⁴⁻²⁰ The unique aspect of the lesion is to be emphasized. No previously reported instance of it in association with thrombophlebitis could be found in the literature.

The effects of the anticoagulant on the course of the disease are of considerable significance. The striking and rapid recession of the symptoms of the thrombophlebitis following the administration of Dicumarol further establishes the therapeutic value of the drug in phlebotic processes and confirms previously reported observations.²¹ It is especially noteworthy that the same response was observed twice under almost identical conditions. It was evident from the clinical picture that during the intervals of prothrombinopenia that propagation of the thrombotic process ceased only to resume its activity when the Dicumarol action abated. This is in accord with the experimental findings of Richards and Cortell²² and of Dale and Jaques.²³

Certain observations concerning Dicumarol action are well exemplified here. The same dose (400 mg.) administered the second time within a fortnight after the prothrombin time was restored to normal was followed by a much greater degree of prothrombinopenia than it was on the earlier occasion. It is known that there is no hypersensitivity or immunity acquired after prior ingestion of the anticoagulant. Two of us have shown this in

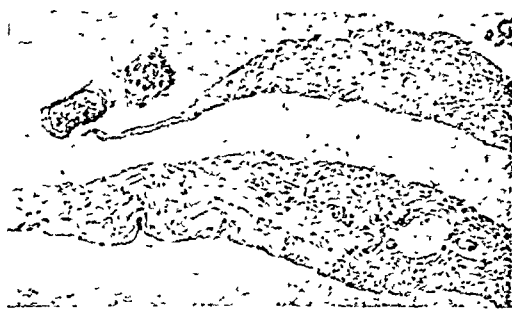


Fig. 4. Biopsy after recovery. No abnormalities are visible.

previous work.²⁴ The reason for the more pronounced response is to be found in the change in the nutritional state of the patient consequent to such severe illness. This experience serves to emphasize the absolute necessity for frequent estimation of the prothrombin time during Dicumarol therapy. The use of diluted (12.5 per cent) plasma for prothrombin assay is urged because of its greater sensitivity and reliability and because of the additional data thereby obtainable.^{8,25}

The occurrence of confusional and maniacal states is an interesting variation in the symptomatology of the disease. These are due, it appears, to dissemination of the phlebotic process to the intracranial system of veins.^{5,6}

The microscopic sections of the mammary gland revealed mural alterations of the veins, venous thrombosis, and hyalinization of the thrombi and the intima. The picture indicates that the condition was of greater duration than the symptoms indicated. Hence, in addition to local spread of existing lesions, the disease attacks various vulnerable vessels widely distributed throughout the body, either simultaneously or at different intervals. An appellation such as "thrombophlebitis migrans disseminata" is proposed to designate the features of the disease and to distinguish it from the local variety.

The biopsy specimen obtained from the right leg after the clinical evidences of activity had abated revealed no significant residual pathology. That the disease may be of reversible nature is demonstrated thereby.

Summary

A case of phlebitis with migratory and disseminate lesions is described. A unique complication, gangrene of a mammary gland, arose during the course of the disease. The mechanism by which this was induced is undecided. That the disease may be reversible is illustrated by the biopsy findings. To describe the widely distributed lesions it is suggested that the entity be designated as "thrombophlebitis migrans disseminata."

The striking improvement following the administration of Dicumarol is described. Observations on the use of this anticoagulant are noted. The absolute necessity for frequent prothrombin assay during the time that the drug is being used is em-

Medical Society of the State of New York

Minutes of the House of Delegates—May 3–6, 1943

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TABLE.—BLOOD COUNTS

Date	R.B.C.	Hgb.	W.B.C.	Seg- mented Polys.	Nonseg- mented Polys.	Lympho- cytes	Basophils	Eosinophils	Mononuclears
4/27	4.4 millions	84%	13.2 thousands	77%	14%	8%	1%	...	...
6/8	3.3 millions	60%	19.0 thousands	73%	17%	10%	...	...	...
6/23	4.3 millions	78%	9.0 thousands	55%	22%	18%	...	3%	2%

phasized. The advantages of the estimation of diluted (12.5 per cent) plasma prothrombin time are pointed out, and its use is recommended.

Addendum

Since this paper was written, one of us (S. S.) has treated a case (referred by Dr. M. Rashbaum) of recurrent thrombophlebitis involving a lower extremity and in which gangrene of the intestine (requiring resection of the bowel) had occurred following mesenteric thrombophlebitis.

The reader is referred to a report of another case in which mesenteric thrombophlebitis occurred by Birnberg, V. J., and Hansen, A. E., *J. Pediat.*, 21: 775-786 (December) 1942.

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\$1,000 BACTERIOLOGY PRIZE

The \$1,000 prize and gold medal given annually by the Society of American Bacteriologists to an American bacteriologist under 36 years of age who has made an outstanding contribution to knowledge of the subject during the year were awarded to Dr. Harlan G. Wood, research assistant professor of bacteriology at Iowa State College.

Work tending to show that carbon dioxide acts

as a vitamin-like substance necessary in the life of plants and animals won the award for Dr. Wood.

The award is presented at the annual meeting of the Society of American Bacteriologists, but as this was canceled this year, the award was presented to Dr. Wood at a joint meeting at Iowa State College of local chapters of the Society and of Sigma Xi.—*Science News Letter*



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House of Delegates

Minutes of the Annual Meeting

May 3 and 4, 1943

THE 137th Annual Meeting of the House of Delegates of the Medical Society of the State of New York was held at the Hotel Statler, Buffalo, New York, on Monday, May 3, 1943, at 10.10 A.M.: Dr. Louis H. Bauer, *Speaker*; Dr. William Hale, *Vice-Speaker*; Dr. Peter Irving, *Secretary*; Dr. Edward C. Podvin, *Assistant Secretary*.

SPEAKER BAUER: The House will be in order.
Ladies and Gentlemen, The National Anthem!

... The delegates sang "The Star-Spangled Banner"

Section 1. (See 42)

Report of the Reference Committee on Credentials

SPEAKER BAUER: The chair recognizes Dr. Peter Irving, chairman of the Reference Committee on Credentials.

SECRETARY IRVING: Mr. Speaker, there are no disputed delegations, and all on our rolls are entitled to vote.

SPEAKER BAUER: I declare the 137th Session of the House of Delegates of the Medical Society of the State of New York open for the transaction of business.

Mr. Secretary, how many delegates are registered?

SECRETARY IRVING: I cannot give you that number just yet, sir, but there is a quorum present.

SPEAKER BAUER: There is a quorum present, and the number of delegates will be reported later

Section 2

Approval of the Minutes of the 1942 Session

SPEAKER BAUER: The first order of business is the approval and adoption of the minutes of the 1942 Session of the House.

SECRETARY IRVING: I move you, sir, that the reading of the minutes of the 1942 Session of the House be dispensed with, and that they be approved and adopted as published in the June 15 and July 1, 1942, issues of the NEW YORK STATE JOURNAL OF MEDICINE.

Dr. ROBERT BRITAIN, *Delaware*: I second that motion.

... There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER BAUER: Mr. Secretary, will you read the Reference Committee appointments?

Ladies and Gentlemen, please pay particular attention to the reading as there are several changes from the printed list.

Section 3

Reference Committees

SECRETARY IRVING: The Reference Committees of the 1943 House of Delegates are as follows:

REFERENCE COMMITTEE ON CREDENTIALS

Peter Irving, *chairman*, New York County
John F. Burden, Oswego County
Charles F. McCarty, Kings County
Edward C. Podvin, Bronx County
Seymour L. Homrighouse, Montgomery County

REFERENCE COMMITTEE ON REPORT OF PRESIDENT:

David W. Beard, *chairman*, Schoharie County
J. Stanley Kenney, New York County
Philip I. Nash, Kings County
Charles A. Prudhon, Jefferson County
John E. Wattenberg, Cortland County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART I.

Postgraduate Education

Albert F. R. Andresen, *chairman*, Kings County
Conrad Berens, New York County
William J. Tracy, Steuben County
Lyman C. Lewis, Allegany County
Leo E. Reimann, Cattaraugus County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART II.

Public Health Matters

G. Scott Towne, *chairman*, Saratoga County
Albert A. Cinelli, New York County
Edward P. Flood, Bronx County
Morris Maslon, Warren County
Herbert E. Wells, Erie County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART III.

School Health Program

W. Guernsey Frey, Jr., *chairman*, Queens County
Joseph H. Cornell, Schenectady County
Ralph I. Lloyd, Kings County
Walter G. Hayward, Chautauqua County
Ralph Sheldon, Wayne County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART IV.

Publications and Medical Publicity

Andrew A. Eggston, *chairman*, Westchester County
Charles A. Anderson, Kings County
Albert A. Gartner, Erie County
Alfred M. Hellman, New York County
Joseph P. Henry, Monroe County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART V

Medical Expense Indemnity Insurance

Harry S. Bull, *chairman*, Cayuga County
Robert F. Barber, Kings County
Ada Chree Reid, New York County
A. H. Noehren, Erie County
Nelson W. Strohm, Erie County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART VI

Medical Relief

William B. Rawls, *chairman*, New York County
Edgar O. Boggs, Lewis County
Joseph A. Geis, Essex County
Abraham Koplowitz, Kings County
Guy S. Philbrick, Niagara County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART VII:

Legislation

Walter P. Anderton, *chairman*, New York County
John J. Buettner, Onondaga County
Eugene H. Coon, Nassau County
B. Wallace Hamilton, New York County
Harry W. Miller, Putnam County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART VIII:

War Participation

Frederic W. Holcomb, *chairman*, Ulster County
Kenneth F. Bott, Greene County
Emil Koffler, Bronx County
Erich H. Restin, Westchester County
Thomas B. Wood, Kings County

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cians; requirements for licensure; the tendency for hospitals to get into the practice of medicine; the effect of 11,000,000 men returning to civil life with their demands on a paternalistic government; relationships to government agencies and commercial organizations that have any relations with medicine; the increased costs of medical care and the various propositions which have been suggested for reducing those costs, such as voluntary indemnity insurance and the means of making the latter more widespread and inclusive; the status of nursing.

The Council has many committees, and they are doing effective work, but they are largely concerned with the problems of immediate importance, and each committee with only one phase of one problem. We should have a committee concerned with the broad general principles of a long-range program, a committee which can bring to us a policy of our own which we can set up not only in opposition to ill-advised and often crackpot theories but in advance of many of them. We must be constructive leaders. Such a committee, to my mind, would not complete its work in one year or two years. It would evolve a program gradually, and such a program might be changed from time to time as conditions changed, but it would be a program which would, at least, be abreast of the times and possibly ahead of them. Then whenever some outside agency called attention to a problem not only would our answer be ready but we might perhaps already have solved the problem.

We are not soothsayers, and we shall not be able to foresee everything, but we do know the trends and many of the situations that we shall have to face. Medical matters must be decided by medical men, and changes must, in medicine, be led by physicians, or there will be chaos and regression rather than smooth functioning and progress. Our plan must be constructive, and we must offer it soon or others will offer plans which will be destructive.

Let us inform the public in no uncertain terms that we are in favor of good medical care for all with freedom of choice of physician; that methods will be found to bring that good care to all; that whatever changes are necessary to accomplish this will be made, but that those changes will be carried out under the guidance of the medical profession and not by governmental or lay agencies; and that we have a program that will meet the situation and at the same time will protect those high standards of medical care which have made the United States the healthiest country in the world.

To accomplish this I suggest that the House establish a committee on long-range medical policies. While the House can establish this committee for but one year, succeeding Houses can extend its tenure.

You have read the Presidential Report of Dr. Cottis. He recommends the same thing. To make this suggestion more concrete I have drawn up a resolution, which if adopted will, I believe, be the most progressive step this Society has taken in many years and will make this Society the leader in any changes which the practice of medicine may undergo:

"WHEREAS, there are various influences and trends in the world which directly affect the practice of medicine; and

"WHEREAS, there are many government agencies actively engaged in all phases of medicine; and

"WHEREAS, these agencies are not coordinated or integrated with each other for the most part; and

"WHEREAS, there is bound to be a period of adjustment and readjustment in the postwar period, as already evidenced in various war programs; and

"WHEREAS, The Medical Society of the State of New York is directly concerned with possible changes in the practice of medicine, and in this State should lead and direct such changes; and

"WHEREAS, there has been a tendency for the Medical Society to wait until changes are proposed by others and then endeavor to meet those changes, rather than propose a constructive program of its own; and

"WHEREAS, the Council and Council Committees of the State Society are concerned with matters of immediate importance rather than long-range policies; and

"WHEREAS, the Council Committees are of yearly tenure and the preparation of a long-range program may take more than one year; therefore, be it

"Resolved by the House of Delegates of the Medical Society of the State of New York, in its Annual Session in May, 1943, that, in accordance with Section 1 of Chapter XII of the By-Laws, a special committee of the House of Delegates is hereby established. This committee is to be known as the Planning Committee for Medical Policies; and be it further

"Resolved, that this Committee shall consist of eleven members who are members of the Medical Society of the State of New York. Six of these members shall be appointed by the Speaker. The President, the President-Elect, the Secretary, the Speaker, and the Chairman of the Board of Trustees or a member of the Board designated by him shall constitute the other five members. The Committee shall elect its own Chairman and Recorder; and be it further

"Resolved, that the Committee, in studying and in developing a policy for the status of medicine and the physician in relation to the public in the postwar period, shall consider the following:

1. The distribution of physicians.
2. Educational requirements for licensure.
3. Voluntary insurance plans and other plans for decreasing the costs of medical care.
4. Socializing influences.
5. Relationships of the medical profession with government agencies, commercial laboratories, and vendors concerned with any phase of medicine.
6. The relationship of hospitals and the practice of medicine.
7. Relationships with and the status of the nursing profession.
8. Such other matters as the committee deems important from the standpoint of protecting the public and the medical profession from attempts to bring about inadequate medical care and unwarranted interference by outside agencies with the practice of medicine; and be it further

"Resolved, that all Council Committees concerned with any phase of this program shall give such advice and assistance as called for by this Special Committee; and be it further

"Resolved, that this Special Committee shall report to the House of Delegates at its next

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART IX:

Workmen's Compensation

Carlton E. Wertz, *chairman*, Erie County
 Roy B. Henline, New York County
 Charles S. Lakeman, Monroe County
 Milton S. Lloyd, Richmond County
 George C. Vogt, Broome County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART X:

Public Relations and Economics

William W. Street, *chairman*, Onondaga County
 David Corcoran, Suffolk County
 Edwin A. Griffin, Kings County
 William Klein, Bronx County
 Henry S. Martin, Wyoming County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART XI:

Status of Foreign Physicians

Leo F. Simpson, *chairman*, Monroe County
 Stephen H. Curtis, Rensselaer County
 Maurice J. Dattelbaum, Kings County
 Joseph C. O'Gorman, Erie County
 Beverly C. Smith, New York County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART XII:

Miscellaneous

Stephen R. Monteith, *chairman*, Rockland County
 James S. Lyons, Albany County
 Peter M. Murray, New York County
 Theodore W. Neumann, Orange County
 Joseph Wrana, Queens County

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART XIII:

Malpractice Defense and Insurance

Legal Counsel

Moses H. Krakow, *chairman*, Bronx County
 Samuel E. Appel, Dutchess County
 Benjamin M. Bernstein, Kings County
 John Dugan, Orleans County
 Denver M. Vickers, Washington County

REFERENCE COMMITTEE ON REPORTS OF SECRETARY, CENSORS, AND DISTRICT BRANCHES:

Scott L. 19 County
 William County
 Clifford y
 Daniel A. McAteer, Kings County
 Madge C. L. McGuinness, New York County

REFERENCE COMMITTEE ON REPORTS OF TREASURER AND TRUSTEES.

J. Lewis Amster, *chairman*, Bronx County
 Archibald K. Benedict, Chenango County
 Corbet S. Johnson, Tioga County
 Leo P. Larkin, Tompkins County
 Ezra A. Wolff, Queens County

REFERENCE COMMITTEE ON NEW BUSINESS A

John J. Masterson, *chairman*, Kings County
 John L. Edwards, Columbia County
 Dan Mellen, Oneida County
 Leo F. Schiff, Clinton County
 John L. Sengstack, Suffolk County

REFERENCE COMMITTEE ON NEW BUSINESS B:

Albert G. Swift, *chairman*, Onondaga County
 Thomas M. D'Angelo, Queens County
 Emily D. Barringer, New York County
 Charles C. Trembley, Franklin County
 Louis A. Van Kleeck, Nassau County

REFERENCE COMMITTEE ON NEW BUSINESS C:

John D. Carroll, *chairman*, Rensselaer County
 Horace E. Ayers, New York County
 Harry I. Johnston, Broome County
 James B. Lawler, Oneida County
 Harvey B. Matthews, Kings County

Mr Speaker, I move that the reports that have already been published and distributed to the members of the House through the STATE JOURNAL be referred to the respective committees without reading.

SPEAKER BAUER: You have heard the motion of the Secretary that the printed reports that have already been printed and distributed be referred to the respective reference committees without reading. Is there any objection to that being done?

... There was no dissent. ...

SPEAKER BAUER: There being none, it is so ordered.

Section 4. (See 61)

Address of the Speaker Recommending Special Committee of House called "Planning Committee for Medical Policies"

VICE-SPEAKER HALE: The chair recognizes Dr. Louis H. Bauer.

SPEAKER BAUER: Mr. Vice-Speaker, it is not the custom in this House of Delegates for the Speaker to deliver an address, for which I am duly thankful and for which I imagine the House is likewise thankful; however, these are extraordinary times. The country is in the midst of war and the medical profession is beset with many problems. Without desiring to establish any precedent, I make bold to take a little of your time to express my opinion upon and to present to you a problem which I believe is the most outstanding one confronting us.

The medical profession has been accused of being obstructionist. This is an unjust accusation, but we must admit that we have been slow in planning for the future. We have been too content to sit back and wait until we are faced with definite problems and then endeavor to solve them, rather than try to anticipate them.

The world is changing, much as we regret it. Unless we are alive to this fact, and unless we try to direct those changes, in so far as they affect the practice of medicine, we shall be left at the proverbial hitching-post, and instead of leading we shall be led.

I wonder how many members of this House realize the number of inroads on the private practice of medicine already made by government agencies? If you have not already done so, I suggest that you look at the imposing list published in the JOURNAL for April 1. It is astounding, yet most of these socialized phases were proposed by the medical profession itself. Many of them, however, have slipped out of our grasp, and we no longer control them. In my opinion, the danger we have to face in New York is not complete socialized medicine, but an extension of phases already in effect, under the aegis of lay control.

We hear much these days of "Beveridge Plans," of social security from the cradle to the grave, or, as Dr. Fishbein and others have aptly described it, "from the womb to the tomb." There are many agencies using the war effort as a cloak to foster their pet schemes for further socialization of medicine, and what are we doing about it?

It is not a case of rushing in where angels fear to tread, for while the proponents of some of the schemes are sincere, though ill-advised, many of them, I fear, are equipped with horns and a forked tail rather than with wings.

The medical profession must evolve a plan of its own and work and fight for its adoption. We must look ahead and take into consideration the fact that these trends have already made headway. We must harness those trends and drive them, or they will drive us.

We must consider many factors in evolving a policy—factors such as the distribution of physi-

Advisory Boards. They are serving under the Office of Civilian Defense in the organization of medical resources and training of civilians for emergencies of peace as well as of war.

In the armed forces on April 1, 1943, were enrolled more than 9,100 of our doctors from New York, who with other doctors have shown a devotion to duty and a heroism under fire that have merited highest praise. As early as August, 1942, Surgeon-General McIntire broadcast his account of the work of the doctors at Pearl Harbor, at Guadalcanal, in American field hospitals, and on our aircraft carriers, such as the torpedoed "Lexington"—"doctors," he said, "who operated in their hospitals under continuous fire and who risked their lives in safeguarding the wounded. Many of the medical officers have been commended by their commanding officers and recommended for decorations because of their devotion to duty under the most hazardous circumstances." Too often, now, do we hear of the many doctors who, in the pursuit of military duty, have made the supreme sacrifice. The example of our doctors in the past year will inspire us in the next.

The call for doctors for our rapidly expanding Army is still urgent, and must be met chiefly by New York State and its larger cities. Every "available" man should present himself at once for commission, and every teaching institution, every hospital, and every "essential" physician should use their influence to have our quota completed. Neither hospitals, medical schools, nor communities will be seriously crippled thereby.

Although the duration of the war cannot be foretold, nor the financial and social conditions of the nation at its termination accurately predicted, many groups of people are actively engaged in making provisions for the postwar changes. Their attention is occupied in the fields of economics, of capital and labor, of education, of world politics, in religion, in universal peace and happiness, and in matters of social security and of health. Many of them hold that in a time of revolution many radical changes, at other times impossible, can be successfully effected.

The government, too, as it should, has had committees at work making preparations for the new world. It would seem that we must guarantee the lands, the mode of life, and the political rights of the individual, in addition to freedom from every want, not only for ourselves but for all peoples.

From England has come a proposed security plan which would assure, among other things, complete free medical care for everyone in the Kingdom. Our own government, through a National Committee, has published a similar plan of social security, with compulsory health insurance, the outlines of which are hazy as yet.

The leaders of one of the largest political groups in our State have announced a social security plan that would include compulsory health insurance for all, regardless of their means. It would seem that nothing that has existed longer than the past two years is sound, or right, or valuable. However, it is consoling to recall "that every war we have been through has generated a more or less widespread epidemic of war melancholia, but each time when peace has come the disease has disappeared." The best guide for our future is the history of the past, and the most valuable changes have been evolutionary—not revolutionary—in their nature. In this country within the past twenty-five years that kind of progress in every branch of medicine has given our people better health, more widely avail-

able medical care, and a lower death rate than any other country has had.

In state and county medical societies—the units of organized medicine—will be found the knowledge of the medical needs of their regions and also the records of experience in meeting these needs. Throughout the country many plans to meet local needs are in operation which have been conducted or sponsored by these societies. It is distressing to have the government and industry spend great fortunes in these mushroom towns, with armies of new employees, and make no decent provision for the housing, the sanitation, the food supplies, or the care of the health of the hosts of new residents. Conferences in advance with the local and public health authorities and with the doctors of the counties and states would have averted the threatening dangers. The results of such conferences in places like Portland, Oregon, where more than 100,000 workers on ships flocked to the city, show how good medical services could be arranged. More than 900 doctors, in their patriotism, have voluntarily dislocated themselves from their homes and practices and given their full-time services to the boom towns and to areas with an insufficient number of physicians.

The health of people engaged in industrial occupation should receive from us still greater attention. Despite workmen's accident compensation laws in many states, there has not been the success in the prevention of accidents that the people expected. Insufficient attention has been given to the study of the 1,100 different diseases due to occupation and of the maintenance of good health. Still less effort has been made to find places within the industries for the employees with partial disabilities. Many of our industrial corporations are but slowly realizing the importance to themselves, as well as to the workers, of the preventive measures. The avoidable sick leaves, the turnover in labor, the decrease in production because of ill health, and the large premiums for accident insurance are now receiving more consideration.

It is not the function of industry to care directly for the employee and his family in sickness. That is the duty of the doctor outside the factory: the physician in the community, the physician chosen by the patient, the family doctor; and it is the obligation of county and state medical societies to prevent further invasion by corporations or employers into this practice of medicine. The physician in industry will be well employed in protecting all the employees from disease or accident, in knowing at all times the physical capabilities of the man for his particular job, in finding places in the plant for the employee who because of accident or disease is unable to maintain his former skill, and in striving to retain in the plant every man capable of working, regardless of his chronologic age.

This subject has become more important with the entrance of large numbers of women into new lines of industrial labor. Heretofore, women have been engaged for the most part in branches of labor requiring mental skill, clerical duties, light machine work, and those occupations for which women are by nature better fitted, while to men have been left the jobs which require heavier, muscular efforts and irregular shifts of hours. Many women, young and old, married, single, and widowed, and those having the obligations and responsibilities of homes, of children, and of husbands, have been enticed

regular meeting such progress and recommendations as are possible toward defining a policy for the State Medical Society in providing adequate medical care for all under the leadership of the medical profession; and be it further

"Resolved, that if, in the opinion of the Committee, official sanction of its actions and recommendations is urgently required prior to the next meeting of the House of Delegates, the Committee is authorized to seek such sanction from the Council; and be it further

"Resolved, that the Board of Trustees is requested to appropriate sufficient funds to defray the necessary expenses of this Committee for traveling, stenographic reports of its meetings, and the purchase of publications necessary for its study." (Applause.)

VICE-SPEAKER HALE: You have heard the suggestions from Dr. Bauer and the resolution that accompanies them. This resolution bears very close association with the recommendation of the President. For that reason I should refer it to the Reference Committee which is to consider the Report of the President.

SPEAKER BAUER: I still hope we will get a "mike" here, but apparently it is like the coal strike: it can't be fixed until the last minute. (Laughter.)

I am sorry to say we are going to be a little cramped for space for our reference committees. The hotel is so crowded that we were unable to obtain any rooms for the reference committees to work in as we have had heretofore. Small tables have been placed about this room, and after the meeting adjourns you may move to any of these tables you like and go to work.

The House will be in recess from adjournment this morning, at whatever time we get through, until 3:00 P.M., and there will be no session this evening. Therefore this room will be unoccupied during both of those periods, and the committees can work here. For such committees as will be unable to complete their work in that period—as, for example, the three reference committees on new business—there is space on the eighteenth floor in the rooms of the Erie County Medical Society where they can work; and, of course, the committees may go to the room of one of their members if they prefer that. I know that this arrangement is not particularly convenient, but it is the best we can do, and we will have to get along with it.

There are stenographers at the rear of the room who will type resolutions for you, but the committee reports should be taken to the eighteenth floor, where in the rooms of the Erie County Society, stenographers will be available to make up your reports. There should be four copies of all reports and all resolutions. The room number of the Erie County Society is 1814, and you have to walk upstairs to the eighteenth floor, for there is no elevator. The stairway is a little to your right before you get to the registration desk, near the elevators on the seventeenth floor.

Tickets for the Civilian Defense Dinner on Tuesday night may be secured at the registration desk by those who desire to attend that meeting.

Section 5. (See 7, 61)

Remarks of the President

SPEAKER BAUER: Dr. Johnson, if my memory serves me right—and I think it does—two years ago you nominated the present President of the Medical Society of the State of New York. Such

being the case, I would like to have you act as a committee of one to escort the president of the Medical Society of the State of New York to the platform.

(The delegates arose and applauded as Dr. William D. Johnson, of Batavia, escorted Dr. George W. Cottis to the platform.)

SPEAKER BAUER: I present your President.

PRESIDENT COTTIS: Mr. Speaker and Gentlemen, we have a heavy program. I don't want to take up any of your time, but I want to say in just one minute how delighted I am to have heard the Speaker's masterly presentation of this resolution. When I put that in my annual report I did it because I feared nobody else might think about it. I find that I was 'way behind the procession because Louis Bauer had been planning this thing long before I wrote my message. It is a very gratifying indication that the profession is alert and on its toes. We have suffered most of our grief because we have emulated Lot's wife and turned backward instead of looking forward. It is no wonder that some of us resemble a pillar of salt.

I think that, with the war, we all realize that the best defense is a good offense. This is our first step in the offensive against those agencies which to our mind are detrimental to the public welfare.

I hope that the reference committee will endorse the Speaker's resolution, and I hope that the House will adopt it.

I thank you! (Applause)

SPEAKER BAUER: The remarks of the President are referred to the Reference Committee on the Report of the President, of which Dr. Beard is chairman.

Section 6. (See 61)

Address of the President-Elect

SPEAKER BAUER: Dr. Brennan, would you consider yourself a committee of one to escort the President-Elect of the Medical Society of the State of New York to the platform?

(The delegates arose and applauded as Dr. Thomas M. Brennan, of Kings County, escorted Dr. Thomas A. McGoldrick to the platform.)

SPEAKER BAUER: Dr. McGoldrick, the House will be glad to hear from you at this time.

PRESIDENT-ELECT MCGOLDRICK: Let me make, Mr. Speaker, as the first official act for the coming year of the Medical Society of the State of New York, the renewal of our pledge of loyalty and unrestricted cooperation, with all we possess, to our Commander-in-Chief, the President of the United States. (Applause.)

Let me make a special pledge to our men in arms, on behalf of our doctors who are with them and those who are still in civilian life, that every aid medical science can produce will be available for them and for their families at home.

To our brother doctors in military service let me send the assurance of our knowledge and appreciation of the high quality of their work, of the sacrifices they have made and are making, of the splendid results they are securing in the care of our men, and of the honor they are earning for themselves and their profession.

In addition to the routine work of caring for the health of the people our doctors in civilian life will continue during the year to perform their special duties for the prosecution of the war. With no remuneration, more than 5,000 of the physicians in this State have examined a vast army of selectees, they have served on Appeal Boards, on Medical

At this time I believe it important that a special committee be appointed to study the matter on its merits. I have two reasons for this belief.

First, sixteen states have adopted a basic science law. This is no argument for our adopting it any more than the licensing of chiropractic by 42 states is an argument for our doing so. But an article in the *American Medical Association Bulletin*, prepared by the Bureau of Legal Medicine and Legislation (November, 1936) quotes officials of the state medical societies of 10 states who are enthusiastic about the results of such legislation. Surely a law which has given satisfaction to other state medical societies is worthy of our consideration. The fact that the American Medical Association has prepared a draft of a uniform basic science act as the basis for legislation "to be sponsored by any state medical association" is not without significance.

Second, the State Legislature has passed a resolution to create a committee not only to study legislation in other states but "to prepare and recommend legislation for the regulation and licensing of chiropractors in this State." The wording of that clause is for us the handwriting on the wall.

In all other states the basic science law has been passed after the chiropractors have been licensed. It may be that a study of the results will indicate that we should close the barn door before the horse is stolen. At least we should be informed by an impartial committee, while there is still time to act.

Respectfully,

G. W. CORTIS, M.D., *President*

SPEAKER BAUER: I will refer this supplementary report to the Reference Committee on the Report of the President, of which Dr. Beard is chairman.

Section 8. (See 50)

Supplementary Report of the Council—Part I: Postgraduate Education

April 26, 1943

In addition to the instruction mentioned in the Annual Report submitted March 6, 1943, instruction has been arranged for the following county medical societies:

County	Instruction	No. Lectures
Broome	Plasma Therapy and Whole Blood Transfusion	1
Clinton	Plasma Therapy and Whole Blood Transfusion	1
Cortland	Sulfonamide Therapy	1
Franklin	Plasma Therapy and Whole Blood Transfusion	1
Greene	Plasma Therapy and Whole Blood Transfusion	1
Herkimer	Plasma Therapy and Whole Blood Transfusion	1
Onondaga	Plasma Therapy and Whole Blood Transfusion	1
Rensselaer	Plasma Therapy and Whole Blood Transfusion	1
Richmond	Plasma Therapy and Whole Blood Transfusion	1
Steuben	Plasma Therapy and Whole Blood Transfusion	1
Suffolk	War Medicine and Surgery	1

The Committee arranged for a total of 94 lectures, 72 of which were given jointly by the New York State Department of Health and the Medical Society of the State of New York.

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part I, of which Dr. Andresen is chairman.

Section 9. (See 76)

Supplementary Report of the Council—Part II: Public Health Matters

April 26, 1943

Maternal and Child Welfare.—On April 7, 1943, in New York City a meeting of the Council Committee on Public Health and Education and the Subcommittees on Maternal and Child Welfare was held with representatives of the State Department of Health to discuss "Emergency Maternal and Infant Care."

"The first Federal Deficiency Appropriation Act, 1943, made an appropriation of \$1,200,000 to enable the states to provide so-called 'Emergency Maternity and Infant Care,' obstetric and pediatric (for infants under one) to wives and infants of men in the ARMED FORCES, ARMY, NAVY, MARINE CORPS and COAST GUARD, of fourth, fifth, sixth, and seventh grades. (This excludes wives and infants of master, major, first, technical, staff, and platoon sergeants; and of chief, first, and second class petty officers.)

"Federal grants for the purpose will continue during the war and six months thereafter.

"Such care is available, when supported by identifying data, to wives and infants irrespective of financial status and residence, but will not be given if services are readily available from medical personnel of Army or Navy facilities.

"Authorization for maternity service will start with date of application, and for sick infants can be made retroactive to cover the week immediately preceding the date of application.

"Initial authorization for hospital maternity and infant care—not more than fourteen days.

"The plan also includes purchase of bedside nursing care, when necessary and cannot be adequately supplied through local regular public health nursing service. Special nurses can be engaged for critical periods of serious illness.

"The plan also provides for consultation service, ambulance service, transfusions, and expensive drugs, when necessary and requested by the physician.

"Authorization of more prolonged care may be requested by attending physicians or hospitals where submitted data justifies further care than that initially authorized.

"Hospital care provided will be on a ward cost per patient day of the particular hospital. When the amount of such care rendered to eligible patients amounts to \$500 the hospital must submit to the State Department of Health a statement of operating expenses for the most recent year, covering seventeen specified items entering into the calculation of war cost per patient day, according to a prescribed method of calculation."

Industrial Health.—Dr. Herbert H. Bauckus, chairman, Study Committee on Industrial Health, reports:

"In order to complete this year's report on the activities of the Study Committee for Industrial Health the following should be added to the previously report:

During the week of April 11, Dr. Orlen J. Johnson, from the Council on Industrial Health of the American Medical Association, toured the State of New York. He stopped at Schenectady, Utica, Syracuse, Rochester, and Buffalo, and discussed with the leading repre-

into these plants by the temporary high wages and the thought of contributing to the war. Every physician knows that there is no satisfactory substitute in the home for the mother. To slackened home authority has been attributed the great increase of juvenile delinquency of the war period.

Our Industrial Health Committee will continue to study these and the related subjects, to give information, advice, and help to employees and employers, to individual physicians as well as to the county societies, and will have our encouragement and support in the furtherance of its work.

Our State Society has not been unmindful of the burden placed on many people by the costs of sickness, and has approved and encouraged practical methods to lighten the load. The great costs of hospital care are moderated by the Associated Hospital Plan, while in various parts of the State there are indemnity groups which aid in meeting the costs of professional services. Voluntary plans are under consideration that will provide further advantages to patient and to doctor. The citizen of our nation wants and should have less compulsion, more individual freedom, and his judgment is supported by the retarding effects on general health and on the advance of science in countries where compulsory health insurance exists.

It is with much hope that I look to the acceptance by this House of the resolution offered by our Speaker, Dr. Bauer. The Committee, therein proposed, with wide powers to study all phases of the economic matters affecting the profession and the public, including provisions for the rehabilitation and the reconstruction of individuals now in the community or returning from war services, and to make progress reports during the year, would be most helpful. The formation of such a committee has the approval of our President, Dr. Cottis, who proclaimed its need and its beneficent possibilities in his Presidential Address.

Lack of employment and diminished income are more often the cause of ill health than ill health is the cause of the idleness and poverty. Our own Governor Dewey of New York has this view of the relative importance of these factors in social security plans, and in his inaugural address expressed the hope and aim of his government to maintain the highest possible rate of industrial activity with full employment. He said that if this could be done in wartime it could also be done in time of peace. Doctors, particularly, have long known how deeply rooted in the financial condition is the ill health of their patients, and that while doles and grants and security benefits may prevent extreme want and permit bare subsistence, these are only the treatments of symptoms and are not directed to removing the cause. The author of the widely noted "English Plan" made the statement that unless there is at least 90 per cent of full employment his proposal will fail.

Coincident with our present full employment and with the high percentage of our national income paid in wages in 1942—the greatest amount in our history—has been the decrease in the demands on our hospitals for ward beds and in all health programs, including clinic visits. An analysis of the total inpatient days in 45 urban areas shows a decrease of 12.5 per cent, while in medical services provided by social agencies, in the home, and by doctors' visits it was 29 per cent.

Since our entrance into the war, statesmen on both sides of the Atlantic, including representatives of the Allied Nations, have drawn for themselves a

charter for their future direction. They have expressed, along with other things, their determined purpose to secure and maintain freedom for their countries from all enslaving powers, and for their citizens, freedom from those vices within a nation that would destroy its prosperity, its health, its progress, and its peace.

Medicine, too, has many freedoms that it will ever pursue—will ever safeguard. It demands freedom from political, bureaucratic, or nonmedical domination of every sort in the work of the profession; freedom, as of right, to be fully represented in every organization or council, industrial or governmental, making provisions for medical care of the individual or for the public health; it insists that all features of medical service in any method of medical practice should be under the control of the medical profession; it wants freedom to retain and control a philanthropy which has ever been associated with its name, to select the objects, the persons, and the places of bounty and at the same time, apart from this work of charity, to receive the financial remuneration commensurate with the priceless services it gives and the high costs of its training. Medicine wants freedom to pursue its studies, to continually acquire more knowledge, to attain more wisdom, to discover and to quickly apply new scientific truths. It wants all these, not for the aggrandizement of the profession, or for the selfish gain of any doctor, but that as the trustee of the health of every community and of every person in the community it may render to them its fullest measure of devotion. (Applause)

SPEAKER BAUER: The remarks of the President-Elect will be referred to the Reference Committee on the Report of the President, of which Dr. David W. Beard, of Schoharie, is the chairman. I hope that both Dr. Cottis and Dr. McGoldrick will remain on the platform during the sessions of the House.

Mr. Secretary, are there any supplementary reports?

SECRETARY IRVING: A number, sir: one from the President; others from the Council and from several of its committees as follows: Part I—Postgraduate Education; Part II—Public Health Activities; Part III—School Health Program; Part VII—Legislation; Part VIII—War Participation; Part XII—Miscellaneous; Part XIII—Malpractice Defense and Insurance, Legal Counsel; one from the Special Committee on Publication; one from the Special Committee on Office Administration and Policies.

These, Mr. Speaker, have been distributed. I suggest that they be referred to the appropriate reference committees, with the special committee reports going to the Reference Committee on Council Report—Part IV.

SPEAKER BAUER: These supplementary reports have all been mimeographed and distributed and are before you. Does anyone wish them read?

.... There was no answer.

SPEAKER BAUER: I take it no one does.

Section 7. (See 5, 61)

Supplementary Report of the President

April 16, 1943

For several years a resolution favoring a basic science law has been introduced in the House of Delegates. Every year it has been decisively defeated. Last year it seemed to me that the adverse reaction of the House was more emotional than thoughtful.

At this time I believe it important that a special committee be appointed to study the matter on its merits. I have two reasons for this belief.

First, sixteen states have adopted a basic science law. This is no argument for our adopting it any more than the licensing of chiropractic by 42 states is an argument for our doing so. But an article in the American Medical Association *Bulletin*, prepared by the Bureau of Legal Medicine and Legislation (November, 1936) quotes officials of the state medical societies of 10 states who are enthusiastic about the results of such legislation. Surely a law which has given satisfaction to other state medical societies is worthy of our consideration. The fact that the American Medical Association has prepared a draft of a uniform basic science act as the basis for legislation "to be sponsored by any state medical association" is not without significance.

Second, the State Legislature has passed a resolution to create a committee not only to study legislation in other states but "to prepare and recommend legislation for the regulation and licensing of chiropractors in this State." The wording of that clause is for us the handwriting on the wall.

In all other states the basic science law has been passed after the chiropractors have been licensed. It may be that a study of the results will indicate that we should close the barn door before the horse is stolen. At least we should be informed by an impartial committee, while there is still time to act.

Respectfully,

G. W. COTTIS, M.D., *President*

SPEAKER BAUER: I will refer this supplementary report to the Reference Committee on the Report of the President, of which Dr. Beard is chairman.

Section 8. (See 50)

Supplementary Report of the Council—Part I: Postgraduate Education

April 26, 1943

In addition to the instruction mentioned in the Annual Report submitted March 6, 1943, instruction has been arranged for the following county medical societies:

County	Instruction	No. Lectures
Broome	Plasma Therapy and Whole Blood Transfusion	1
Clinton	Plasma Therapy and Whole Blood Transfusion	1
Cortland	Sulfonamide Therapy	1
Franklin	Plasma Therapy and Whole Blood Transfusion	1
Greene	Plasma Therapy and Whole Blood Transfusion	1
Herkimer	Plasma Therapy and Whole Blood Transfusion	1
Onondaga	Plasma Therapy and Whole Blood Transfusion	1
Rensselaer	Plasma Therapy and Whole Blood Transfusion	1
Richmond	Plasma Therapy and Whole Blood Transfusion	1
Steuben	Plasma Therapy and Whole Blood Transfusion	1
Suffolk	War Medicine and Surgery	1

The Committee arranged for a total of 94 lectures, 72 of which were given jointly by the New York State Department of Health and the Medical Society of the State of New York.

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part I, of which Dr. Andresen is chairman.

Section 9. (See 76)

Supplementary Report of the Council—Part II: Public Health Matters

April 26, 1943

Maternal and Child Welfare.—On April 7, 1943, in New York City a meeting of the Council Committee on Public Health and Education and the Subcommittees on Maternal and Child Welfare was held with representatives of the State Department of Health to discuss "Emergency Maternal and Infant Care."

"The first Federal Deficiency Appropriation Act, 1943, made an appropriation of \$1,200,000 to enable the states to provide so-called 'Emergency Maternity and Infant Care,' obstetric and pediatric (for infants under one) to wives and infants of men in the ARMED FORCES, ARMY, NAVY, MARINE CORPS and COAST GUARD, of fourth, fifth, sixth, and seventh grades. (This excludes wives and infants of master, major, first, technical, staff, and platoon sergeants; and of chief, first, and second class petty officers.)

"Federal grants for the purpose will continue during the war and six months thereafter.

"Such care is available, when supported by identifying data, to wives and infants irrespective of financial status and residence, but will not be given if services are readily available from medical personnel of Army or Navy facilities.

"Authorization for maternity service will start with date of application, and for sick infants can be made retroactive to cover the week immediately preceding the date of application.

"Initial authorization for hospital maternity and infant care—not more than fourteen days.

"The plan also includes purchase of bedside nursing care, when necessary and cannot be adequately supplied through local regular public health nursing service. Special nurses can be engaged for critical periods of serious illness.

"The plan also provides for consultation service, ambulance service, transfusions, and expensive drugs, when necessary and requested by the physician.

"Authorization of more prolonged care may be requested by attending physicians or hospitals where submitted data justifies further care than that initially authorized.

"Hospital care provided will be on a ward cost per patient day of the particular hospital. When the amount of such care rendered to eligible patients amounts to \$500 the hospital must submit to the State Department of Health a statement of operating expenses for the most recent year, covering seventeen specified items entering into the calculation of war cost per patient day, according to a prescribed method of calculation."

Industrial Health.—Dr. Herbert H. Bauckus, chairman, Study Committee on Industrial Health, reports:

"In order to complete this year's report on the activities of the Study Committee for Industrial Health the following should be added to the previously report:

"During the week of April 11, Dr. Orlen J. Johnson, from the Council on Industrial Health of the American Medical Association, toured the State of New York. He stopped at Schenectady, Utica, Syracuse, Rochester, and Buffalo, and discussed with the leading repre-

representatives of the respective county societies the setting up and the programs of future industrial health committees. In Syracuse and Buffalo, where committees have been functioning during the past year, prospective developments were discussed in detail. The decision to make these industrial centers a basis for concentrated industrial health activities for organized medicine had been made at a meeting held in New York by the entire Study Committee for Industrial Health, in February of this year.

In Buffalo Dr. Johnson was able to participate in the first open forum which was held by the Buffalo District Committee on Industrial Health under the chairmanship of Dr. Herbert H. Bauckus. The forum, which was called under the timely title, "Increase Manpower through Industrial Health," was attended by over 250 persons, representing management, labor, and the medical and nursing professions. Dr. Clarence D. Selby, Medical Consultant of the General Motors Corporation, Detroit, was the main speaker, discussing "Industrial Health in the Nation at War." He was followed by a 40-minute panel discussion in which selected members of the local committees highlighted some of the main problems facing industry, labor, and the medical profession today. Actual analysis of 1,000 cases of industrial absenteeism; food as a weapon; home problems of women in industry; industrial nursing; a report on a labor-management health committee; fatigue, rest, recreation, and vacation; and the seven-day week were burning topics which were readily taken up by the audience in a lively discussion lasting until late in the night.

"There were many interesting features revealed in the original panel presentation. The analysis of the absenteeism cases brought out that 54 per cent of absenteeism was caused by illness. A labor representative reported on the harmonious working relations with management in settling critical health problems, and management and labor agreed to a surprising degree on the need for a six-day week, regular rest periods during the work day, and vacations as a necessary stimulus to morale and new energies for greater production.

"The latest accomplishment of this committee, which has been functioning for scarcely four months, is an exhibit at this convention, featuring an efficient First Aid Department for a plant with less than 500 employees. Already it has become manifest that the Buffalo District Committee for Industrial Health is not only rendering an important service to the local community, but is serving as an inspiration to states and counties all over the country in establishing similar committees. Until now the committee has been functioning entirely without an appropriation and all financial outlays have been borne by individual members of the committee interested in its growth. This lack of definite funds is seriously hampering a group which has shown such splendid initiative. Although it is anticipated that some funds will be raised from management and labor, both of which are intensely interested in the progress of the committee, it is hoped that funds can be made available from the Medical Society of the State of New York to aid in the work of

this committee, and as an indication that organized medicine recognizes the overall value of this local enterprise and wishes to support it."

Tuberculosis and Diseases of the Chest.—Dr. Charles D. Post, chairman, Subcommittee on Tuberculosis and Diseases of the Chest, reports as follows:

"Judging by the large number of acceptances received to attend the luncheon to be held in Buffalo at Hotel Statler on Wednesday, May 5, 1943, at 12:00 m., the Committee feels that an excellent opportunity will be had for acquainting the representatives from the county societies with the objectives of our programs. At this meeting we will have those best qualified to present various phases of the problems confronting us. The Committee feels that by having this meeting it will bring together the many agencies in this field for the purpose of establishing a co-ordinated program. The attendance at this luncheon will be over seventy-five. The Committee, at the present time, is also giving attention to an exhibit which will be on display at the Buffalo meeting."

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part II, of which Dr. Towne is chairman

Section 10. (See 51)

Supplementary Report of the Council—Part III School Health

April 26, 1943

On February 10, 1943, in New York City, the Committee on Public Health and Education held a meeting with the Subcommittees on Child Welfare and 4-H Clubs and Youth Health Activities, representatives from the New York State Departments of Health and Education, and the New York State Association of School Physicians to discuss the course content of health education in the high schools. As a result of this meeting it was decided that the Medical Society of the State of New York should designate two or more representatives who would be available in an advisory capacity to the State Department of Education. This recommendation was submitted to the Council on February 11, 1943, and was approved.

Dr. George W. Cottis, President of the Medical Society of the State of New York, has notified Dr. George D. Stoddard, Commissioner, State Education Department, that the following physicians have been appointed as representatives of the Medical Society of the State of New York:

Paul W. Beaven, M.D., Vice-Chairman, Subcommittee on Child Welfare, 26 South Goodman Street, Rochester, New York.

J. G. Fred Hiss, M.D., Chairman, Subcommittee on 4-H Clubs and Youth Health Activities, 505 State Tower Building, Syracuse, New York.

A. Clement Silverman, M.D., member, Subcommittee on Child Welfare, 608 East Genesee Street, Syracuse, New York.

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part III, of which Dr. Frey is chairman.

Section 11. (See 48)

Supplementary Report of the Council—Part VII: Legislation

The Council Committee on Legislation respectfully submits a supplementary report:

The chiropractors did not introduce their bill until the late afternoon of the last day allowed for introduction of bills. Whether it was considered good strategy to wait and attempt to rush the *Chiropractic Bill* through in the increasing excitement of final activity is not known. The bill came out on the floor in the Senate and with the third reading was destined for action a few days later in the Senate. The Assembly Rules Committee held it up.

Twenty-four hours before adjournment a Resolution was introduced in the Senate for the creation of a committee to make a study of chiropractic and to report to the next Legislature on or before February 15, 1944, with an appropriation of \$10,000 to meet the expenses of the Committee; this Committee to submit whatever recommendations it deems most efficacious to regulate and control the practice of chiropractic. With the concurrence of the Assembly, both Houses adopted the Resolution. Some feel this is an adroit move to secure positive and favorable action—a really aggressive political move with full agreement of the chiropractors. Others feel that a valuable opportunity to bring to light the complete story of chiropractic is offered; your Legislative Committee is hoping that the Governor will approve this Resolution. We are confident that the findings of the committee will support the contention that chiropractic should not be recognized until the applicants for licensure meet the educational qualifications now required of physicians and osteopaths.

The Council has voted that the Legislative Committee appoint a subcommittee to be prepared to furnish all facts concerning chiropractic, and also to study fully the merits or uselessness of a separate *Basic Science Law*. This subcommittee shall seek convenient occasions to meet with this committee of the Legislature, in order to bring out all of the facts. If we are correct in assuming that this committee, when appointed, will be earnest and sincere in studying and in investigating chiropractic, they will welcome our subcommittee and our Executive Officer. The controversy of years' standing will be brought to an end. This should result to the satisfaction of the Regents, who must uphold the high standards of the Medical Practice Act. This should be satisfactory to the medical profession, who rightly feel that chiropractic is against the best interests of the sick public. It should be gratifying to those who enforce the law, for it should terminate the abuse of the law—illegal practice.

The Governor has already signed the *Whitney-Bawley Bills* which provide for reasonable personal income tax deductions for unusual medical expenses, including the cost of childbirth; for life insurance premiums; and for exempting dependents over 18 years of age in full time attendance at an accredited school or college.

The Governor has also signed the *Pillion-Burney Bill*, providing for extension until July 1, 1944, of the privileges of applying for renewal of license without examination within three months after finishing military services, to a person inducted into military service and licensed to practice medicine or dentistry or other professions and occupations.

The *Radiology Bill* as amended was defeated.

Did the Anti-Vivisectionists, who have not been heard from in a number of years, hope to slip through a bill in these times?

Assembly Int. 1923—Rules Committee was introduced with the backing of the State Administration giving the Governor the right to appoint a layman as

Commissioner of Mental Hygiene with a medical man under him as Medical Director. Doctor Lawrence promptly expressed disapproval of this measure, pointing out that the Commissioner should continue to be a doctor and if necessary, a business director should be provided. In those hectic days, time to amend the bill was lacking. The Council on April 8 thoroughly discussed this bill, and voted that the opinion of the Council should be transmitted to the Governor; that the medical responsibilities of the Commissioner are such that only a person with the thorough understanding of mental diseases can efficiently and satisfactorily manage the activities of this department. The chairman of the Committee on Public Health and Education and the Executive Officer, with the Secretary, composed a suitable letter to the Governor, and it was sent out over the signature of the Secretary. On March 22, 1943, Doctor Lawrence thoroughly discussed the situation in a special letter to the County Society Legislative Chairmen. You will find it also further stressed in Bulletin No. 7, issued on March 25, 1943.

A committee of the Council to Study the Present and Future Status of Foreign Physicians presented a recommendation on February 11, 1943, which was adopted and referred to the Committee on Legislation. This resolution requires citizenship in the United States, changing the State Educational law, Sec. 1256, Ch. 1. The Legislative Committee was instructed to use discretion and judgment, in order that such a move might be made only at an opportune time. Legislators, especially the Speaker of the Assembly and the Minority Leader, were contacted. All were sympathetic. The opinion was that the time was not right. The interpretation of the opinions of the various legislators was that objection would be made that this might seem to interfere with federal activities by decreasing the availability of physicians. In other words, we were prepared to introduce a citizenship bill, but were counselled against such a move this year.

Our Executive Officer, so often spoken of as our "able representative," secured a report on the work of the Department of Education, the Board of Regents, and the Office of Professional Conduct, in the interest of the medical profession. In this report, covering a little over a month, it was shown that 247 complaints have received attention. Some were closed, some were referred to the Attorney General, some were before the Medical Grievance Committee, and some before the Board of Regents. Doctor Lawrence was promised monthly reports. Because of the pressure of complaints, the Medical Grievance Committee has been asked to furnish two subcommittees until further notice, and the full Grievance Committee has agreed to meet four times a year instead of twice.

Credit is due the Board of Regents for their extraordinary efforts to meet the present situation. The record system and the administrative procedure in the Office of Professional Conduct have been completely reorganized to render the best possible service to the profession. Newspaper publicity in disciplinary cases has been avoided. A physician's license might be suspended, but public reaction to the doctor might make it amount to a revocation—a more severe penalty.

The session of the Legislature has been unusually brief; yet the Senate was deluged with 1,650 bills, and the Assembly with 1,944. Doctor Lawrence weeded out 40 Senate and 49 Assembly bills of a medical aspect, and some of the most important medical bills were brought out together in the terrific

rush of the last hours, keeping our Executive Officer on his toes.

The county societies' legislative committees and officers were very cooperative. The answer report sheets were promptly returned. We are greatly indebted to them and to the medical society auxiliaries for their coordinated efforts. The Council of the State Medical Society has aided us in many different ways and we appreciate fully their assistance and advice.

The Legislature adjourned on Friday, March 26. There are many bills in the hands of the Governor for signature or disapproval, and he has thirty days from the time of adjournment in which to act. Our Executive Officer, Dr. Joseph S. Lawrence, will give a complete report in time for the House of Delegates, on all bills acted on during the Legislative session. At this time, may we refer you to the final Bulletin issued on March 31, 1943, for the present status of the bills followed during the year?

WALTER W. MOTT, M.D.

LEO F. SIMPSON, M.D.

JOHN L. BAUER, M.D., *Chairman*

Addendum Report

April 26, 1943

The thirty-day period allotted the Governor for action upon the bills passed by both houses of the Legislature in the last days of the session has elapsed and the following bills have received the Governor's signature:

Senate Int. 1559—Wallace (Assembly Int. 1847—Manning), provides relief for sick and disabled veterans of World War II and appropriates \$10,000. Chapter 327 of the Laws of 1943.

Assembly Int. 335—Mailler (Senate Int. 278—W. J. Mahoney), authorizes Governor, on recommendation of State Health Commissioner, to designate emergency health and sanitary areas when inadequacies of medical facilities or personnel caused by national emergency exist in any area in the State; State Health Commissioner to cooperate with local health and welfare agencies and employ necessary medical and health personnel. Chapter 294 of the Laws of 1943.

Some states are meeting this emergency by authorizing their medical examining boards to recognize, with a temporary license, physicians licensed to practice in other states. In the State of Washington the period of this temporary license extends only until the next regular examination given by the board of examiners.

Assembly Int. 544—Breed, provides that crime of sexual intercourse with person in U.S. Military Service by one infected with venereal disease shall be punishable by imprisonment for not less than one and one-half years nor more than three years. Chapter 343 of the Laws of 1943.

Assembly Int. 647—Milmo (Senate Int. 515—Young), provides for forwarding to executive officer of State Education Department a copy of all charges against physicians in cases in which subcommittee of Medical Grievance Committee, as well as the Committee, shall deem a trial necessary. Chapter 460 of the Laws of 1943.

This law will increase the efficiency of the Grievance Committee by permitting it to appoint from its membership subcommittees to take the first evidence.

Assembly Int. 666—Mitchell, empowers New York City magistrate to try and punish any person

charged with violating sections of sanitary code, penalty to be fine not exceeding \$25 or imprisonment not exceeding ten days, or both. Chapter 278 of the Laws of 1943.

Assembly Int. 877—Owens (Senate Int. 705—Williamson), provides rules and orders of county health board shall state date on which they take effect, copy signed by county health commissioner or deputy to be filed in State Health Department, county health department, and county clerk's office; they must be published from time to time as sanitary code, certified copy to be furnished for fee of \$1.00; such code shall have effect of law. Chapter 258 of the Laws of 1943.

Assembly Int. 907—Molinair (Senate Int. 954—Bainbridge), provides that when ragweed or other noxious weed or plant is growing in any city, local health board may declare it to be a nuisance and order it destroyed or abated; if order is not complied with, local board may enter property and remove same. Chapter 398 of the Laws of 1943.

Assembly Int. 958—Archinal (Senate Int. 785—Hampton: Assembly Int. 1185—Schwartz), provides restriction on public hospitals treating workmen's compensation cases only during emergency shall not apply where carrier or employer refuses or neglects to authorize any hospital service after employee requested that they furnish same or when nature of injury required such services and employer or agent neglected to provide same; injured employee may then select any hospital. Chapter 442 of the Laws of 1943.

It is claimed that the principal reason for this amendment to the law is to aid an injured workman when the responsibility for the injury is to be litigated, permitting the workman to select a hospital where, in the event that he should lose the case, his hospital bill will not fall entirely upon him.

Assembly Int. 1125—Mailler (Senate Int. 937—W. J. Mahoney), extends to July 1, 1944, effective date of provision permitting practice of medicine in hospital by physicians and interns with certain educational qualifications and provisions relating to medical students performing clinical clerkship. Chapter 193 of the Laws of 1943.

Certain hospitals are employing, both as interns and as clinical clerks, persons whose educational qualifications would not be acceptable by the Medical Examining Board. Under the law these persons should not be continued in their present employments, but owing to the war emergency the enforcement of the law is being postponed another year.

Assembly Int. 1390—Mailler (Senate Int. 1051—W. J. Mahoney), continues to April 1, 1944, commission created to formulate long-range health program, and appropriates \$75,000. Chapter 207 of the Laws of 1943.

Assembly Int. 1923—Rules Committee, strikes out provision that State Mental Hygiene Commissioner shall be a physician and provides for medical director in such Department who shall be a physician with certain experience to advise the Commissioner as to medical policy and to have direct charge and control of treatment of inmates. Chapter 691 of the Laws of 1943.

This law is permissive and not mandatory, so in the event that the Governor can find a physician who would meet the qualifications as previously stated, there is nothing to prevent the Governor from appointing him commissioner.

The following bills were signed by the Governor

before adjournment of the Legislature and were previously reported:

Assembly Int. 377—Whitney (Senate Int. 328—Bewley) provides for reasonable personal income tax deductions for unusual medical expenses, including cost of childbirth, for life insurance premiums, and for exempting dependents over 13 years of age in full time attendance in an accredited college or school. Chapter 12 of the Laws of 1943.

Assembly Int. 672—Pillion (Senate Int. 605—Burney), extends until July 1, 1944, provisions permitting person inducted into military service and licensed to practice medicine, dentistry, and other professions and occupations to apply for renewal of license without examination within three months after termination of military service. Chapter 116 of the Laws of 1943.

Among the bills reported in our bulletins as having a casual interest, the following have been passed and signed by the Governor:

Senate Int. 333—Desmond, provides that a psychiatrist, in a criminal action to determine whether or not defendant is sane, shall be entitled to reasonable traveling expenses if psychiatrist is employee of state. Chapter 289 of the Laws of 1943.

Assembly Int. 92—Milmo, provides that where there are fewer than 10 physically handicapped children, city or union free school district education board may establish special class with consent of education commissioner and apportionment of school moneys therefor shall be prorated. Chapter 449 of the Laws of 1943.

Assembly Int. 93—Milmo, authorizes education boards to provide milk for pupils within limitation of appropriation therefor and strikes out provision that cafeteria or restaurant service shall be self-supporting. Chapter 450 of the Laws of 1943.

Assembly Int. 95—Moffat, suspends until July 1, 1944, provisions prohibiting purchase of butterine or oleomargarine by certain state institutions. Chapter 540 of the Laws of 1943.

Assembly Int. 231—Stuart, continues to July 1, 1944, provision authorizing health commissioner to embargo milk supply that he believes dangerous to health or to transfer milk from one plant to another to prevent sabotage or enemy action. Chapter 13 of the Laws of 1943.

Assembly Int. 233—Stuart, provides that birth and death certificates when applied for shall be accompanied by other evidence besides sworn statements and affidavits, as State Health Commissioner may require. Chapter 17 of the Laws of 1943.

Assembly Int. 840—W. R. Williams, makes it a misdemeanor to grow narcotic plant known as marihuana without license, or knowingly to allow it to grow on land without destroying same. Chapter 123 of the Laws of 1943.

Assembly Int. 1282—Dwyer, requires police chief or peace officer with similar functions to cause blood-grouping tests to be taken of person arrested and charged with felony or major misdemeanor if necessary for identification. Chapter 592 of the Laws of 1943.

The following bills were vetoed by the Governor:

Senate Int. 9—Wicks (Assembly Int. 1771—Knauf), creating in State Education Department board for licensing and regulating the practice of optical dispensing and appropriating \$10,000; providing for issue of license without examination to

person with five years' experience before January 1, 1944, and to person in U.S. armed forces within six months after discharge. Vetoed with the following memorandum:

This bill seeks to establish professional standards under supervision of the Department of Education for opticians whose function it is to grind lenses and fit them. Licensing and some supervision of opticians is undoubtedly desirable and there have been deceptive practices by some, which must be stopped. To attempt, however, in the midst of a war to set up new standards as rigorous as those imposed by this bill might deprive the public of essential services. At this time, in view of the difficult standards established by the bill, it is disapproved."

Senate Int. 334—Burney (Assembly Int. 449—Wright), providing in workmen's compensation cases the furnishing by employer of medical services or appliances for replacement or repair of artificial members of body shall not be construed to admit liability for or to be payment of compensation. Vetoed with the following memorandum:

"This bill would amend the Workmen's Compensation Law. It provides that the furnishing by an employer of medical treatment shall not be construed to admit liability on the part of the employer.

"On its face, this amendment seems harmless. In fact, it would permit an employer to lull the injured employees into a sense of security by making payments until passage of the final date on which to make claim for compensation. Thereafter, the time for making claim having elapsed, the injured employee would be without recourse.

"This amendment would not protect the employer from any hazard he now faces. At the present time, he is under an obligation to furnish the medical treatment specified to an injured employee. One of the effects of this bill would be to over-rule previous court decisions favorable to injured employees. Were the amendments proposed by this law applicable to those cases, the employees would have been deprived of the opportunity of obtaining compensation for injuries sustained in the course of their employment.

"The Workmen's Compensation Law, properly administered, is one of the important bulwarks of a free society and a secure people. It must not be weakened or impaired by legislation such as this."

Senate Int. 1230—W. J. Mahoney, providing physicians, medical inspectors, and dentists appointed or promoted to competitive civil service positions in cities and employed on June 30, 1940, with annual salary, shall continue on annual salary basis with salary increments, including retirement rights. Vetoed with the following memorandum:

"This bill would require municipalities to employ certain specified professionals in the competitive class on a per annum salary basis. The law, if approved, would be mandatory. It may be that the purposes of this bill are desirable. However, the mandating of a municipality in the conduct of local affairs is contrary to the extension of local home rule in this State and is highly undesirable."

Assembly Int. 880—M. Wilson (Senate Int. 699—Condon), providing in workmen's compensation cases injured employee may be treated by licensed pediatricist authorized by industrial commissioner to render such care; providing for schedules limited

to defined localities, of minimum charges and fees therefor. Vetoed with no memorandum.

Assembly Int. 1620—P. A. Quinn, making it a misdemeanor to conduct a nurse registry without local license; no licensee to send out a nurse without authority of physician or hospital official or operate lodging house for nurses either on or apart from place where registry is located; fees limited and other regulations imposed. Vetoed with no memorandum.

COMMITTEE ON LEGISLATION
JOHN L. BAUER, *Chairman*
WALTER W. MOTT
LEO F. SIMPSON

EXECUTIVE OFFICER
Joseph S. Lawrence

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part VII, of which Dr. Anderton is chairman.

Section 12. (See 64)

**Supplementary Report of the Council—Part VIII:
War Participation**

April 30, 1943

The latest information obtainable from the State Procurement and Assignment Committee is as follows:

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Additional listed since February 1....	800 to 900
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New York quota for 1942.....	8,600
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It is evident, therefore, that New York has not only met its 1942 quota but is on the way to meeting its 1943 quota.

Procurement and Assignment reports that practically all counties outside of New York City are stripped of every possible available physician. . . . In Kings County, there are 2,024 in service. Three hundred more are still being processed. Only 39 men under 37 were declared essential, and there are only 63 men still available. . . . Richmond has been stripped to the last available man. . . . New York and the Bronx are fast approaching the same condition, so very few more men can be obtained from New York State.

At the start, in New York, 15,700 men were under 45 years of age. Of these, 9,800 to 9,900 are in service, and 2,185 have been physically disqualified. The remainder includes the younger men essential in the full time faculties in the 9 medical schools, all the alien physicians, women physicians, physicians essential in hospitals, and physicians essential in industry and in the mental hospitals. It must in addition furnish the balance required for the armed services.

With 43,000 physicians in the armed services, it will be seen that New York has furnished between 20 and 25 per cent of the total.

It is believed that these figures definitely prove that New York is not the laggard state it has been accused of being, and that this State can be relied upon to furnish every available man who can possibly be spared for military service.

Respectfully submitted,
LOUIS H. BAUER, M.D., *Chairman*,
War Participation Committee

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part VIII, of which Dr. Holcomb is chairman.

Section 13. (See 82)

**Supplementary Report of the Council—Part XII:
Miscellaneous**

April 27, 1943

The Council begs to report on two matters taken up at its April meeting:

Chiropractic Study. The Council was informed of the action of the Legislature setting up a Legislative Commission to study the subject of chiropractic.

After discussion of this matter, the Council decided that it would be well to appoint a Subcommittee of the Council Committee on Legislation, to prepare to attend hearings that will undoubtedly be held by this Commission. The Council recommends that the House approve this decision.

County Health Units. The Council received the following letter from Dr. Haven Emerson, and decided to submit it to the House:

Columbia University
College of Physicians and Surgeons
De Lamar Institute of Public Health
600 West 168 Street, New York

April 3, 1943

To the Council of the New York State Medical Society
292 Madison Avenue
New York, New York

Dr. Peter Irving, Secretary

Dear Sirs:

The House of Delegates of the American Medical Association at their meeting in Atlantic City last June passed the following resolution:

"WHEREAS, a major inadequacy in the civilian health protection in war as in peacetime consists in the failure of many states and of not less than half the counties in the states to provide even minimum necessary sanitary and other preventive services for health by full time professionally trained medical and auxiliary personnel on a merit system basis, supported by adequate tax funds from local and state, and where necessary, from federal sources; therefore be it

"Resolved, that the Trustees of the American Medical Association be urged to use all appropriate resources and influences of the Association to the end that at the earliest possible date complete coverage of the nation's area and population by local, county, district, or regional full time modern health services be achieved.

Since then, the status of local health services throughout our 48 states has been studied and reported upon by a Committee of the American Public Health Association, as will be seen in the current April issue of the *American Journal of Public Health*.

The *Journal of the American Medical Association* has, in its April 3 issue, made favorable editorial comment upon the committee's report, with special reference to pending legislation in the State of Illinois. The *New York Times* of April 2 has given editorial attention to the *Journal of the American Medical Association* editorial.

New York State, with its 62 counties and its population of 13,479,100, in spite of its historic leadership in many respects of both urban and rural health services, has so far failed to take advantage of existing permissive legislation by organizing its entire area for full time health service under local jurisdiction.

There are 11 counties with full time health service under local city or county jurisdiction in New York State (including the 5 in New York City), providing for 8,780,600 population. There are also 11 cities with full time local health service within state-administered health districts, thus providing for an additional 1,660,800 population.

There are 20 state health districts made up of 51 counties with health services organized, directed and almost wholly

supported by the State Department of Health, providing for 3,037,700 population. These, however, do not have a full time health service comparable with that in the 11 counties and 11 separate cities above described. These 51 counties with a rural and small town population of 3,037,700 have no direct responsibility for such health services as they receive through the administration of the districts by the State Department of Health.

In view of the attitude of the House of Delegates of the American Medical Association, and taking into consideration the lack of complete coverage of the State of New York with full time local health services under the direction of trained and experienced medical health officers, I ask the Council to take such action, make such declarations or prepare such resolutions as may seem to them best to make it clear that the organized medical profession of New York State is solidly in support of the point of view of the American Medical Association and will give its support to such legislation and administrative action of state and county governments as will at the earliest practicable date bring to our entire population those indispensable local full time health services now enjoyed by the majority.

In bringing this matter to your attention, may I note that on some occasions in the past thirty years, efforts to obtain full time single and multiple county health units for all the areas of the state have been obstructed by the vested interests (personal, financial, and political) of some of the approximately 800 part-time, relatively untrained local health officers of villages and towns, many of which positions would be abolished if health service by trained full-time medical officers of health were provided.

Better health services, at no greater cost to the taxpayers, and requiring a smaller number of medical health officers, can be provided under the full-time county system than can be had where the part-time health officer prevails as at present.

Asking your favorable consideration of this matter, so that suitable attention and action may follow through the House of Delegates at the meeting in Buffalo, May 3 to 6, I am,

Respectfully yours,

HAVEN EMERSON, M.D.

Woman's Auxiliary. The Council Advisory Committee to the Woman's Auxiliary consisted of the following: Louis H. Bauer, M.D., chairman; Francis R. Irving, M.D.; and Carlton E. Wertz, M.D.

Because of the war situation, and in the interest of economy in time and travel, no meetings of the Committee were held during the year. The Chairman corresponded with the President of the Auxiliary, relative to a program of activity.

The President of the Auxiliary has submitted the following report. Approval is recommended, and it is also recommended that the same activities be approved for the ensuing year.

Respectfully submitted,

L. H. BAUER, M.D., *Chairman*

Annual Report.—At the suggestion of our Advisory Council, the program of our Auxiliary for the year 1942-1943 was built on the following four points:

1. Organize new counties and increase membership in those already organized.
2. Each county to make a survey of the capabilities of the membership to be turned over to the county medical societies.
3. Offer assistance to the medical societies in any of their work in which they could use our help.
4. Continue our program of health education with particular stress on the Health Insurance project of the State Society.

On the first point we struck a snag. We found several county societies who were interested in forming auxiliaries when the war is over but were not in favor of doing so now. In membership many coun-

ties are remitting their local dues and paying the national and state dues of wives of doctors who are in service. There has been some increase in membership, but this may be offset by the loss of some members in the small rural counties.

Most of the counties have reported making the survey suggested by the Advisory Council, and have offered their services to the county societies.

Our public relations chairmen have continued wherever possible with health education programs for lay people and many of the counties have had meetings given over to a discussion of the Health Insurance project.

The chairman of legislation has visited various sections of the state to explain her program and has sent out comprehensive bulletins to the counties covering all bills pertaining to medicine which have been introduced in our State Legislature. The members of the Executive Board visited the State Senate in session in February.

Public relations work has continued in spite of the loss of our state chairman when she joined her husband who was called into service. The outline suggested by the National Chairman has been followed.

Our Program Chairman has followed the outline of the National Chairman with very creditable results.

The Hygeia Chairman has been tireless in her efforts and has a substantial increase in subscriptions to her credit for the year. We hope also to show an increase for the *Bulletin*, as great stress has been put upon its value to Auxiliary officers and members.

Our state philanthropic project is the Physicians' Home, for which we solicit subscriptions from the individual counties. A Special Committee of the Executive Board remembers birthdays of the inmates as well as Christmas and special occasions.

Many of the county auxiliaries have local projects which they sponsor or aid each year, such as Scout Camps and camps for underprivileged children.

The restrictions placed on motor transport in the East have had their effect on many auxiliaries. Some have been unable to meet regularly; many have had to curtail the number of their meetings; some have had to hold their meetings to coincide with the medical societies in order to ride with their husbands; and many other changes and make-shifts have had to be made. All of our members individually are busy in their local communities in all kinds of war work, however, and enthusiasm for the auxiliary runs high. We have the spirit that will carry us through the emergency and gives promise for a rosy future when the world returns to normalcy.

Respectfully submitted,

MRS. J. EMERSON NOLL, *President*

Memorials. The Council offers memorials of two former Presidents of the Medical Society of the State of New York, and one Councilor, who have died since the last meeting of the House of Delegates.

Dr. Terry Monroe Townsend

Dr. Terry Monroe Townsend, of New York City, served organized medicine over many years, until his death on May 16, 1942, in his sixty-sixth year.

He was an original founder of the American Urological Association, President of the New York Urological Society (Branch of the American Urological Association), 1911 to 1912. He was President of the

to defined localities, of minimum charges and fees therefor. Vetoed with no memorandum.

Assembly Int. 1620—P. A. Quinn, making it a misdemeanor to conduct a nurse registry without local license; no licensee to send out a nurse without authority of physician or hospital official or operate lodging house for nurses either on or apart from place where registry is located; fees limited and other regulations imposed. Vetoed with no memorandum.

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two brothers, John F. Brosnan, a member of the New York Bar, and Captain Vincent J. Brosnan, Catholic chaplain of the Army of the United States, stationed at Camp Livingston, Louisiana. To all of them the sincerest sympathy and heartfelt condolence of this House of Delegates are extended and be it recorded that this expression of our deep sense of loss is placed in our minutes and that a copy be transmitted to the family.

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part XIII, of which Dr. Krakow is chairman.

Section 15. (See 60)

Supplementary Report of Special Committee on Office Administration and Policies.

The Special Committee on Office Administration and Policies recommends that the House of Delegates continue this Special Committee working under supervision of and reporting to the Council, and that the House give the following directive as to continuance of its personnel in keeping with the action of the House in 1942.

"The Committee on Office Administration and Policies shall consist of the general manager, the business manager of the *JOURNAL* and *Directory*, the literary editor, the treasurer, and one member of the Board of Trustees to be appointed by the president of the Society, after consultation with the chairman of the Board of Trustees."

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part IV, of which Dr. Eggston is chairman.

Section 16. (See 53)

Supplementary Report of Special Committee on Publication

The Committee on Publication recommends that the House of Delegates continue this special Committee of the Society working under supervision of and reporting to the Council, and that the House give the following directive as to the continuance of its personnel in keeping with the action of the House in 1942.

"The Committee on Publication shall consist of the general manager, the treasurer, the director of the Public Relations Bureau, the literary editor, and one trustee, who shall be chairman; the trustee to serve shall be selected by the Chairman of the Board of Trustees, and the literary editor shall be selected by the Committee on Publication at its first meeting after this meeting of the House of Delegates, the former literary editor not voting. This is deemed to be the most satisfactory way to choose the incumbent of this position, who thereupon becomes a member of the Committee, because of the familiarity of the Committee with the duties involved and the qualifications necessary for the satisfactory performance of them."

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part IV, of which Dr. Eggston is chairman.

Section 17

Introduction of Representatives from Other State Societies

SPEAKER BAUER: Are there any delegates present from Connecticut, New Jersey, or Vermont?

(Dr. Marshall, of Vermont, arose amid applause.)

SPEAKER BAUER: Dr. Marshall, we are very glad indeed to have you here. I am pleased to extend to you the privileges of the floor.

If at any time during the session anyone learns of delegates from other states being present, I wish they would let the Chair know so they can be properly introduced.

Section 18

Constitution and Bylaws—Amendments Adopted

SPEAKER BAUER: There are four amendments introduced last year which come before you now for consideration, they having been printed in accordance with the bylaws.

Mr. Secretary, will you read the amendments?

(A) Amendment to Chapter X of the Bylaws

SECRETARY IRVING: The first one, sir, is an amendment to Chapter X, of the Bylaws, Section 1. It refers to "Expenses."

"Section 1. Allowances for expenses incurred in the actual performance of official duties by officers, members of the Council, the Board of Trustees, of the Board of Censors and committees, and delegates to the American Medical Association, shall be made in conformity with the following conditions: The President shall be allowed a per diem and expenses when engaged upon official business. All other officers shall be allowed traveling expenses when engaged upon official business. Members of the Council, of the Board of Trustees, and of the Board of Censors, shall be allowed traveling expenses. Members of committees of the Council and all special committees of the Society shall be allowed traveling expenses. Presidents of the District Branches sitting in the House of Delegates shall be allowed necessary expenses. There shall be no allowance made for the expenses, traveling or otherwise, for any committee appointed pursuant to Chapter XI of these Bylaws. Proper vouchers must be filed with the secretary before any of above allowances are made. The delegates to the American Medical Association who have attended each session of the House of Delegates of that Association and who shall have filed with the secretary evidence of such attendance shall be allowed the actual cost of railroad transportation and Pullman accommodations to the place of meeting and return. Each district branch shall be entitled to receive a sum not to exceed \$200, exclusive of the work done by the secretary regarding notices, programs, etc., to defray the expenses of holding the annual meeting of such district branch, provided a proper statement of such expense shall have been presented to the secretary. All bills, claims, or vouchers herein provided for shall be filed within thirty days after the date of the incurring of such expense. This time may be extended for any cause by the Board of Trustees and such extension shall not exceed ninety days. *Payment of all these expenses shall be made under directions of the Board of Trustees.*"

SPEAKER BAUER: There was one provision purposely omitted, which was to the effect that "The vouchers of such expense shall be approved by the Board of Trustees before payment." That was the point of the amendment.

SECRETARY IRVING: Yes, it was designed to facilitate the payment of vouchers; that is, the trustees could set up regulations under which vouch-

Medical Society of the County of New York in 1933, President of the First District Branch of the Medical Society of the State of New York in 1936, and President of the Medical Society of the State of New York, 1939-1940. At the time of his death he was serving on the Committee on Grievances of the New York State Department of Education.

Doctor Townsend was a Fellow of the American College of Surgeons, and a Diplomate in Urology. He had practiced his specialty since coming to New York in 1899. He was active on the staffs of the New York City Hospital, Morrisania Hospital, Lutheran Hospital, Midtown Hospital, West Side Hospital and Dispensary, Reconstruction Unit of Post-Graduate Hospital, Hospitals of the Department of Correction of the City of New York; and Consulting Surgeon to the Sing Sing Prison Hospital.

A man of tremendous and never-failing energy, Doctor Townsend lived a life of highest value to the health of the community, personally and through his many medical society activities. He was a clear-thinking individual who held and expounded strong convictions on the best ways for doctors to practice the healing art and to constantly improve their knowledge with the help of medical societies.

The Medical Society of the State of New York feels deeply the loss of Dr. Terry Monroe Townsend.

Dr. Augustus Joseph Hambrook

Augustus J. Hambrook, M.D., of Troy, New York, died following a long illness, at the Homer Folks Hospital, Oneonta, Otsego County, New York, on July 13, 1942.

He was elected to membership in the Medical Society of the County of Rensselaer in 1909, and served as its secretary during 1912-1913. In 1928 he became a member of the Committee on Public Relations of the Medical Society of the State of New York, on which he served until 1937 when he was elected a councilor and was appointed chairman of the Council Committee on Public Relations and Economics, in which capacity he served the State Society until his demise.

In 1933 and 1934 he was second vice-president of the Third District Branch and in 1935 and 1936 became its president. During these years he also was a censor of the State Society. In 1937 he was a member of the Committee on Trends in Medical Practice and also of the Committee to Confer with the State Hospital Association. The next year he served on the Council Committee on Contacts with the Health and Welfare Departments of the state while at the same time acting as chairman, during that year, of the Council Committee on the Deaf and Hard of Hearing. In 1942 he also acted as a member of the Joint Committee on Dental Health of the State Medical and State Dental societies.

He was a graduate of Albany Medical College, and during the first World War was a captain in the Medical Corps, U.S. Army.

The Medical Society of the State of New York suffered a great loss in the death of this valuable Councilor.

Dr. Grant Charles Madill

Dr. Grant Charles Madill, of Ogdensburg, served the Medical Society of the State of New York over many years until his death in his seventy-ninth year on March 26, 1943. Elected to membership by the St. Lawrence County Medical Society in 1906, he had been a very active worker in county and state societies.

Doctor Madill was President of the Fourth District Branch of the Medical Society of the State of New York in 1911 and 1912; President of the Medical Society of the State of New York, 1919-1920; Delegate to the American Medical Association before and after his Presidency for many years. He was a Trustee of the State Medical Society from 1926 to 1935.

Doctor Madill secured his M.D. from Bellevue Medical College in 1886, and interned at Presbyterian Hospital in New York, 1886-1888, and then started his long practice in Ogdensburg.

In 1908 he was given the degree of LL.D. by St. Lawrence University, and in 1932 the same degree by New York University. Long interested in medical education, Doctor Madill was a Regent of the University of the State of New York for years, and active in that capacity at the time of his death.

Doctor Madill was a Fellow of the American College of Surgeons, and Chief Surgeon, of long-standing, at the A. Barton Hepburn Hospital in Ogdensburg.

The death of Dr. Grant Charles Madill was a great loss to the Medical Society of the State of New York and to the State of New York.

SPEAKER BAUER: I will refer this supplementary report to Reference Committee on Report of the Council—Part XII, of which Dr. Monteith is chairman.

Section 14. (See 85)

Supplementary Report of the Council—Part XIII: Malpractice Defense and Insurance

The Council Committee on Malpractice Defense and Insurance presents the following memorial drawn up after the untimely death of the Society's Legal Counsel, Mr. Lorenz J. Brosnan.

Lorenz J. Brosnan

Lorenz Joseph Brosnan died on April 13, 1943, after a brief illness. Mr. Brosnan had served the Medical Society of the State of New York as counsel since 1930 and had fulfilled every expectation of that position with a competency second to none. Prior to his designation as counsel Mr. Brosnan had been associated with Lloyd Paul Stryker, his immediate predecessor.

Lorenz Brosnan was born in New York City in 1894 and had attended De La Salle Institute. He was graduated from Manhattan College in 1915 with the degree of A.B. and in 1918 was graduated from the Law School of Columbia University and shortly thereafter was admitted to the Bar. During the thirteen years that Mr. Brosnan served our Society as counsel he rendered most exacting and varied services, all of which were faithfully performed. His annual report for the year 1942 has been presented to this House of Delegates, and, as always, reveals his vast accomplishments for the good of our organization.

Mr. Brosnan was a member of the Association of the Bar of the City of New York, the New York County Lawyers Association, the New York State and the American Bar Associations, the Archbishop's Committee of the Laity for Catholic Charities, the Xavier Alumni Sodality, the Manhattan College Alumni Society, the Knights of Columbus, the Society of the Friendly Sons of St. Patrick, the Catholic Club, the Manhattan Club, and the Larchmont Shore Club.

Lorenz Brosnan is survived by his widow, his four daughters, and two sons. Also surviving are

trials and charges of violations of any of the provisions of the Law, as well as any investigation and follow-up of complaints; the Bureau serves as a collecting agency for physicians of the Society without cost to the physicians; the Bureau coordinates Workmen's Compensation in relation to the component county societies.

"The Director of the Bureau attends all arbitrations throughout the State.

"The Bureau maintains contact with the seventy insurance carriers operating under the amended Compensation Law; serves as a clearing house in arbitration matters for the carriers and Labor Department; maintains active contact with the self-insurer organizations; it also is concerned with the quality and type of legislation affecting Workmen's Compensation.

"The Director has been instrumental in obtaining uniform fee schedules for the entire State against the active opposition of insurance companies and employers;

"The result of this has been an excess of over \$1,000,000 a year for upstate physicians:

and

"WHEREAS, the multifarious duties of this Bureau and the obligation recently imposed for investigation; and

"WHEREAS, it is contrary to the best interests of the State Society and the component medical societies to have such onerous duties discharged by a part-time director; be it

"Resolved, that the Director of the Bureau of Workmen's Compensation shall be a full-time individual and who, once appointed, in no way engages in private medical practice; be it further

"Resolved, that the State Society employ such full-time individual on a contract basis for a minimum period of five years, with the choice of reappointment by either party; be it further

"Resolved, that the Board of Trustees determine the annual remuneration to such individual in keeping with the responsibility of the position and the administrative capacity of the individual. It is suggested that a remuneration of \$15,000 a year is adequate and would meet the present living conditions; and be it further

"Recommended that this salary be apportioned amongst the State Society, per se, and one or another of the component medical societies, depending upon the numerical panel of physicians engaged in compensation work."

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business A, of which Dr. Masterson is chairman.

Section 21. (See 57)

Amendment to Medical Practice Act

DR. B. WALLACE HAMILTON, *New York*: For the Medical Society of the County of New York I desire to present:

"Resolved, that the delegates of the Medical Society of the County of New York be instructed to urge the House of Delegates of the Medical Society of the State of New York to consider an amendment to the Medical Practice Act, Section 1264, 'Revocation of certificates; annulment of registrations.'"

To give you the background before I introduce the new matter, I might add that in this little pink book

with which you are probably familiar (holding up *Handbook 9*, The University of the State of New York, Higher Education, Medicine Including Osteopathy and Physiotherapy Law, Rules, and Information, June, 1935), Section 1264 deals with the revocation of certificates and annulment of registration. In Section 2, which introduces the new matter which we propose, it reads:

"2. The license or registration of a practitioner of medicine may be revoked, suspended, or annulled or such practitioner reprimanded or disciplined in accordance with the provisions and procedure of this article upon decision after due hearing in any of the following cases:

- (a) That the physician is guilty of fraud or deceit in the practice of medicine or in his admission to the practice of medicine.
- (b) That a physician has been convicted in a court of competent jurisdiction, either within or without this State, of a crime or misdemeanor; or
- (c) That a physician is an habitual drunkard, or addicted to the use of morphine, cocaine, or other drugs having similar effect, or has become insane; or
- (d) That a physician is guilty of untrue, fraudulent, misleading, or deceptive advertising; or advertising that he can cure or treat disease by a secret method, procedure, treatment, or medicine; or that he can treat, operate, and prescribe for any human condition by a method, means, or procedure which he refuses to divulge upon demand to the committee on grievances; and
- (e) That a physician did undertake or engage in any manner or by any ways or means whatsoever to procure or to perform any criminal abortion or to violate section eleven hundred and forty-two of the penal law."

The proposal we make would be a new subsection (f), and this is the new matter:

"(f) Any physician participating in the division, transference, assignment, rebating, splitting, or refunding of his fee for medical care."

Do I make it clear that this is under the section dealing with "Revocation of certificates; annulment of registration," after due hearing?

The Medical Society of the County of New York would like to introduce this resolution contingent on the judgment of the Committee on Legislation as to the expedient time for introducing any change in the Medical Practice Act.

SPEAKER BAUER: As this pertains pretty much to the same subject, it is referred to the same Reference Committee on New Business, of which Dr. Masterson is chairman.

Section 22. (See 56)

Moreland Act Investigation

DR. A. A. EGGSTON, *Westchester*: This resolution is in connection with the Moreland Act Investigation, and reads:

"WHEREAS, charges made against certain physicians in connection with the Moreland Act investigation of the medical aspects of the Workmen's Compensation Law—if subsequently substantiated and proved by trial—would convict these

ers could be paid but not to cause the delay of waiting until the trustees met and they could be approved.

During the war particularly the trustees have been meeting only every two months instead of every month, and it causes considerably delay in the payment of expense vouchers. This would merely facilitate the payment immediately after the service was performed under the regulations set up by the trustees, who would be responsible as in the past, but would not require their prior approval.

SPEAKER BAUER: This amendment is before you for consideration.

DR. JOHN J. MASTERSON, *Kings*: I move the adoption of that amendment to the Bylaws.

DR. JAMES R. REULING, JR., *Queens*: I second the motion.

... There being no discussion, the motion was put to a vote, and was unanimously adopted

(B) Amendment to Chapter II, Section 1, of the Bylaws

SECRETARY IRVING: The second is an amendment to Section 1 of Chapter II, as follows:

"Section 1. The House of Delegates shall be composed of (a) Delegates elected by the component County Medical Societies; (b) Officers of the Society and other members of the Council and of the Board of Trustees; (c) the Presidents of the District Branches sitting as District Delegates; and (d) a representative from each Scientific Section to be elected by each such Section."

(That (d) is the new material.)

"Past-Presidents of the Society shall be life members of the House of Delegates. Each component County Society shall be entitled to elect as many delegates as there shall be State Assembly Districts in such county at the time of the election, but each component County Medical Society shall be entitled to elect at least one delegate. A component Society representing by its name more than one county shall be entitled to as many delegates as there are Assembly Districts in the counties named in the title of such society."

SPEAKER BAUER: This amendment has but one change. It adds to the membership of the House one delegate from each Scientific Section of the Society, and provides for their being seated in the House the same as delegates from County Societies and District Branches. This amendment is now before you for consideration.

DR. PHILIP I. NASH, *Kings*: I move its adoption.

DR. MOSES H. KRAKOW, *Bronx*: I second the motion.

... There being no discussion, the motion was put to a vote, and was carried. . . .

Section 19

Constitution and Bylaws Amendments—Action Delayed One Year

SPEAKER BAUER: The next two amendments are tied together, and I suggest you read them both: New Article, No. XIV, to the Constitution, and New Section, No. 4, to Chapter XII of the Bylaws.

SECRETARY IRVING: My understanding is that the member who introduced those two amendments would like to have them withdrawn. This is Dr. Kosmak.

DR. GEORGE W. KOSMAK, *New York*: I should like to ask that consideration on these resolutions

be postponed until the next year's meeting of the House of Delegates.

SPEAKER BAUER: Dr. Kosmak, in effect, moves that consideration of these amendments be postponed until next year's meeting. Is there a second to that motion?

DR. KIRBY DWIGHT, *New York*: I will second it.
DR. CHAS. GORDON HEYD, *New York*: A question of order: These have been published for action at this meeting. It seems to me that the motion should be that they be withdrawn, after which they can be reintroduced, but I know of no mechanism which can, after publication of a projected change in the Constitution and Bylaws, avoid a vote on it. Unless they are withdrawn, there is no mechanism, in my opinion, by which to postpone action upon them until next year. In order for us to take that course they must be reintroduced and we must follow the plan laid down for all changes in the Constitution and Bylaws.

SPEAKER BAUER: It is true that amendments cannot be tabled, but action on an amendment could be postponed until the following year because it amounts to the same thing as giving notice that one intends to bring the amendment up next year. I take it that that is the meaning of Dr. Kosmak's motion—that he wishes no action taken this year, but he is giving notice that he will reintroduce them, so that after republication they may be acted upon next year. Is that correct, Dr. Kosmak?

DR. KOSMAK: That is correct, Mr. Speaker.

SPEAKER BAUER: Does that satisfy you, Dr. Heyd?

DR. CHAS. GORDON HEYD: Yes.

SPEAKER BAUER: Is there any discussion on the motion?

... The question was called for, and the motion was put to a vote, and was unanimously carried . . .

SPEAKER BAUER: They will remain in the hands of the Secretary, and be republished next year.

The meeting is now open for the introduction of resolutions.

Section 20. (See 58)

Full-Time Director of Workmen's Compensation Bureau

DR. CHAS. GORDON HEYD, *New York*: I wish to introduce the following resolution:

"WHEREAS, the amendment to the Workmen's Compensation Law in 1935 delegated specific functions to the Medical Society of the State of New York; and

"WHEREAS, it has been alleged through the public press that certain physicians have participated in practices contrary to the ethical principles of the Society; and

"WHEREAS, it is mandatory upon the Medical Society of the State of New York to investigate and try such alleged conditions; and

"WHEREAS, there has been set up a Director of the Bureau of Workmen's Compensation activities by the Medical Society of the State of New York in conjunction with the component societies; and

"WHEREAS, this Bureau embraces all activities, duties, and responsibilities under the amendment to the Workmen's Compensation Law of 1935:

"These duties and activities include qualification of physicians, licensing of x-ray laboratories, and medical bureaus operated by physicians and employees; it includes hearings and

*Section 27. (See 69)***Graduates of Unapproved Colleges as Interns**

DR. HARRY ARANOW, *Bronx*: This resolution concerns the use of graduates of unapproved medical colleges in hospitals in this war emergency:

"WHEREAS, for the last few years the number of medical graduates applying for internship has been inadequate to supply the demand; and

"WHEREAS, the present emergency is drastically reducing the number of interns available; and

"WHEREAS, though the large, desirable, prominent hospitals manage to obtain a minimum number of interns compatible with the proper running of the hospitals, some of the smaller hospitals have been unable to obtain enough interns to give their patients even the most essential care; and

"WHEREAS, the situation is so critical in some localities that hospitals may be compelled to either reduce the character of their service or close altogether; therefore be it

"Resolved, that the American Medical Association be petitioned to permit the approved hospitals, under their supervision, to accept 'for the duration' interns from the several as yet unapproved medical colleges."

SPEAKER BAUER: That resolution also will be referred to the Reference Committee on New Business C, of which Dr. Carroll is chairman.

*Section 28. (See 91)***Blood and Plasma Exchange Bank**

DR. J. STANLEY KENNEY, *New York*: I have a resolution that I have been asked to introduce by the New York County Medical Society relative to the subject of the Blood and Plasma Exchange Bank, which has now been operating for about a year in that county. Though it was conceived and the plans for it were laid about two years ago, it began to function only within the last year, and is proving, we believe, to be a very practical and useful project in the Greater City:

"WHEREAS, the Medical Society of the County of New York, under the leadership of its Special Committee on Blood Transfusion, is sponsoring a nonprofit organization known as the Blood and Plasma Exchange Bank; and

"WHEREAS, this organization has been approved by the Greater New York Hospital Association; and

"WHEREAS, the Blood and Plasma Exchange Bank has put into effect in the County of New York a uniform procedure of the highest standards for blood banks organized within the hospitals; and

"WHEREAS, the Blood and Plasma Exchange Bank is making available to patients blood and plasma, both fluid and dried, at reduced cost for those who can and wish to pay, and free of charge to those who can only supply blood; and

"WHEREAS, the Blood and Plasma Exchange Bank is storing up a reserve of plasma to be used in the event of a catastrophe; and

"WHEREAS, organized medicine is not only rendering these benefits to the sick, but also retaining for members of the profession the practice of transfusion and the art of preparing plasma within the present hospital system; therefore be it

"Resolved, that the Medical Society of the State of New York sponsor the extension of the

activities of the Blood and Plasma Exchange Bank throughout the State, with the view of assisting and encouraging the Blood and Plasma Exchange Bank to extend to the sick throughout the State, and even to our remotest communities, the benefits that it is now rendering; and further be it

"Resolved, that the Medical Society of the State of New York appoint a Special Committee on Blood Transfusion to accomplish these aims."

May I add that transfusion, or whatever name you wish to call it, is an important therapeutic measure, and the objects of this resolution are:

First, that the Medical Society of the State of New York be made familiar with the organization and the aims of the Blood and Plasma Exchange Bank. The New York County Society is, through the Blood and Plasma Exchange Bank, establishing a uniform procedure of the highest standards in blood banks organized within the hospitals. It is making available to patients blood and plasma at reduced cost for those who can and wish to pay, and free of charge to those who can only supply blood. It is storing up a reserve of plasma to be used in the event of a catastrophe. Organized medicine is not only rendering these benefits to the sick but also keeping the practice of transfusion and the art of preparing plasma within the present hospital system and by members of the profession.

Second, it is urged that a special committee on blood transfusion be appointed by the Medical Society of the State of New York with the view of spreading these benefits throughout the State.

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business A, of which Dr. Masterson is chairman.

*Section 29. (See 81)***County Legislative Committees, Additional Meeting in Fall**

DR. ROBERT B. ARCHIBALD, *Westchester*: This resolution is submitted with the idea that it will materially facilitate the work of the various legislative committees of the county societies and also the similar committee of the State Society:

"WHEREAS, the Medical Society of the County of Westchester believes that the legislative work of the Medical Society of the State of New York and the various County Societies would be greatly facilitated by a conference of county society legislative committee chairmen with the State Society Legislative Committee to be held in the late fall each year, in advance of the Legislative Session, in addition to the legislative conference regularly held midway during the Legislative Session; and

"WHEREAS, such a preparatory conference would enable agreements to be reached for the support of legislation mandated by the House of Delegates; would enable county societies having legislative problems to bring them in advance of the meeting of the legislature to the attention of the other counties and of the State Committee; would enable the State Committee to inform county committees of the prospects of the forthcoming legislative session and, in general, would prepare the county committees for more effective cooperation with the State Committee in its work; therefore, be it

"Resolved, that this House of Delegates advise the Council that it favors the holding of such an additional legislative conference with the chairmen of county society legislative committees

physicians of acts which are clearly unethical; and

"WHEREAS, the prominent notice given these charges in the press may have led a portion of the public to infer that such actions are condoned or tolerated by the profession; therefore be it

"Resolved, by the House of Delegates of the Medical Society of the State of New York that all unethical activities in connection with the provision of medical service under the Workmen's Compensation Law are hereby unreservedly condemned and repudiated; and be it further

"Resolved, that the Medical Society of the State of New York urges its component county societies to take prompt and uncompromising action, to the full extent of their disciplinary powers, whenever a member is proved to be guilty of the alleged unethical practices."

SPEAKER BAUER: That is also on the same general subject so it, too, will be referred to the Reference Committee on New Business A, of which Dr. Masterson is chairman.

Section 23. (See 73)

Full Citizenship as Requirement for License to Practice

DR. ALFRED H. NOEHREN, *Erie*: I have been instructed by the Erie County Medical Society to present the following resolution, which is in accordance with action taken at their stated meeting held April 27, 1943:

"WHEREAS, full citizenship has not been required for the securing of a license to practice medicine in New York State; and

"WHEREAS, most foreign countries will not allow United States physicians who are not citizens to secure a license to practice; and

"WHEREAS, many foreign physicians have not been in this country long enough to secure citizenship or become acquainted with the ethics and customs of American medicine; and

"WHEREAS, many of these foreign physicians are not familiar with the health problems and the laws of this State; and

"WHEREAS, there is an undue concentration of refugee physicians in New York State owing to the fact that most states insist upon citizenship as a requirement for licensure; therefore be it

"Resolved, that the delegates representing the Medical Society of the County of Erie be instructed to petition the House of Delegates of the Medical Society of the State of New York to pass a resolution favoring full citizenship as a requisite for securing a license; and be it further

"Resolved, that the Legislative Committee of the Medical Society of the State of New York take steps to have introduced legislation to modify the requirements for licensure so that full citizenship will be a prerequisite."

SPEAKER BAUER: That resolution will be referred to the Reference Committee on New Business B, of which Dr. Swift is chairman.

Section 24. (See 71)

U.S. Cabinet Secretary of Health

DR. BENJAMIN M. BERNSTEIN, *Kings*: The resolution I should like to present reads:

"WHEREAS, the forward march of civilization depends on the world's health; and

"WHEREAS, the health of the people of the United States is the concern of all the people; and

"WHEREAS, coordination of all agencies working for the maintenance of health and the prevention and cure of disease is becoming increasingly important in our daily lives; and

"WHEREAS, the problems of medical care could best be coordinated and correlated under the guidance of a central agency; be it

"Resolved, that the American Medical Association again urge with all the power at its command that a cabinet ministry of health be established, at the head of which there shall be a physician."

SPEAKER BAUER: That resolution will be referred to the Reference Committee on New Business C, of which Dr. Carroll is chairman.

Section 25. (See 72)

World Food Conference

DR. BENJAMIN M. BERNSTEIN, *Kings*: The second resolution I should like to offer concerns the World Food Conference and reads:

"WHEREAS, the use of food and the study and application of problems of nutrition are increasingly essential in the training and practice of the doctor; and

"WHEREAS, the problems of food in this country, as well as the world at large, are the concern of the medical profession; and

"WHEREAS, the knowledge and experience in the possession of the medical profession in this country is of the utmost value in the discussion of national as well as international food relationships; be it

"Resolved, that the American Medical Association be urged to request representation at the coming United Nations' Food Conference to be held at Hot Springs, Virginia, on May 18, 1943.

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business C, of which Dr. Carroll is chairman.

Are there any further resolutions?

Section 26. (See 68)

Committee for Liaison with Hospital Administrators

DR. ABRAHAM KOPLOWITZ, *Kings*: This resolution is pretty self-evident, and I do not think it will require very much debate:

"WHEREAS, the medical profession in its daily work in hospitals is in intimate contact with the administrations of such hospitals; and

"WHEREAS, such contact is through Medical Boards who represent its own staff only; and

"WHEREAS, medical care in hospitals is now so complex and involves economic factors which affect all physicians; now therefore be it

"Resolved, that the House of Delegates of the Medical Society of the State of New York, through its Council, organize a standing committee on liaison with hospital administrators under an appropriate name; to have such subdivisions of such committee as will adequately represent the various subdivisions of the State."

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business C, of which Dr. Carroll is chairman.

instructed by the New York County Medical Society to present a suggested draft of an amendment to Section 17 of the Principles of Professional Conduct of the Medical Society of the State of New York. I think that a complete description of the purposes of this would take too much of the time of the House, and had probably better be given in committee, but, briefly, it is in reference to a good many of the unfairnesses in practice which will occur in large cities, such as New York City and the other large cities of the State. The suggested draft to the amendment reads as follows:

"When one physician seeks the medical aid of another with whom he has previously had no significant professional or social connection, it is proper for the physician seeking aid to offer, and ethical for the treating physician to receive, reasonable compensation for the services rendered."

SPEAKER BAUER: That is referred to the Reference Committee on New Business C, of which Dr. Carroll is the chairman.

Section 33. (See 79)

Suggested Amendment to Federal Compensation Act Covering Longshoremen and Harbor Workers

DR. PETER M. MURRAY, *New York*: By vote of the Medical Society of the County of New York I have been instructed to introduce the following resolution:

"WHEREAS, employees working as longshoremen and harbor workers are covered against injury or death resulting from accidents while at work, by the Federal Compensation Act (Public No. 803-69 Congress.) known as 'Longshoremen's and Harbor Workers' Compensation Act'; and

"WHEREAS, the employer of such workmen is obligated to furnish such medical, surgical and other attendance or treatment, nurse and hospital service, medicine, crutches, and apparatus for such period as the nature of the injury or the process of recovery may require; and

"WHEREAS, physicians in the neighborhood of docks and harbors where such injury may occur have given such injured employees emergency treatment, and have had the patient taken away from them by the employer or his agent and sent to the physician preferred by, or under contract with, the employer; and

"WHEREAS, such physicians who have treated such injured employees have difficulty in collecting fees for services rendered, even for emergency treatment; and

"WHEREAS, the employee, by such procedure, is deprived of free choice of a physician as provided for by the New York State Workmen's Compensation Law, and advocated by the ethics of the American Medical Association; therefore, be it

"Resolved, that it is the consensus of opinion of the New York County Medical Society that the Federal Compensation Act known as Longshoremen's and Harbor Workers' Compensation Act be amended to allow injured employees to be treated by a physician of their own choice with whom they may stay until the completion of treatment."

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business B, of which Dr. Swift is the chairman.

Section 34. (See 59)

Medical Relief, Direct Payment of Medical Fees

DR. EUGENE H. COON, *Nassau*: I have been instructed to present this resolution on behalf of the Nassau County Medical Society:

"WHEREAS, the report of the Subcommittee on Medical Relief of the Council of the Medical Society of the State of New York, as published in the *NEW YORK STATE JOURNAL OF MEDICINE*, March 1, 1943, issue, states that doctors rendering authorized care to recipients of old age assistance of the Welfare Department are in many cases not receiving payment for their services because of the failure of the recipients of such services to pay to the physicians the money given them for such payment, and reports that the State Welfare Department has agreed to send an itemized bill to the patient of the old age group definitely stating the amount due the doctor; and

"WHEREAS, it is the feeling of the Nassau County Medical Society that this proposed step will not be sufficient to assure payment to the physician of his just fee; and

"WHEREAS, numerous complaints have been received from physicians in Nassau County of the inability of the physicians to collect such just fee because of the present regulations prohibiting the direct payment to the physicians by the Welfare Department for services rendered the recipients of relief in those categories which are covered by Federal 'reimbursement' regulations; be it hereby

"Resolved, that it is the opinion of the Nassau County Medical Society that attempts should be made to secure a return to the old system under which payment is made directly to the physician for medical services authorized by the Welfare Department; and be it further

"Resolved, that the delegates representing the Nassau County Medical Society at the annual meeting of the House of Delegates of the Medical Society of the State of New York introduce resolutions calling upon the State Society to recommend to the New York State Department of Social Welfare that steps be taken to assure the payment of physicians for services rendered by making direct payment for such services to the authorized physician."

SPEAKER BAUER: Inasmuch as this same subject is discussed in the Report of the Council—Part VI—on Medical Relief, this resolution will be referred to the Reference Committee on the Report of the Council—Part VI, of which Dr. Rawls is chairman, instead of to a new business committee.

Section 35. (See 70)

Amendment to Workmen's Compensation Law to Cover Paid Hospital Physicians

DR. JACOB WERNE, *Queens*: Mr. Speaker and Members of the House of Delegates, I am instructed by the Queens County Society to introduce the following resolution relative to amending the Workmen's Compensation Law:

"WHEREAS, physicians employed by hospitals or other institutions allied to the practice of medicine are exposed to certain special hazards incident to their employment, in addition to the ordinary hazards common to all individuals employed by these institutions; and

shortly before the opening of the regular session of the State Legislature, for the purposes enumerated above, and to the end that the coordinated legislative activities of the county and State societies may be more purposeful and effective than they can be under present procedures."

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business B, of which Dr. Swift is chairman.

Section 30. (See 52, 54) Directory Publication

DR. WALTER P. ANDERTON, New York: Mr. Speaker and Members of the House, I have been instructed by the Medical Society of the County of New York to introduce the following resolution:

"WHEREAS, the last issue of the *Medical Directory of New York, New Jersey, and Connecticut*, Volume XLI, 1941-1942, is in many instances out of date because of the absences of practitioners of medicine in the armed forces and because of removals; therefore be it

"Resolved, that it is recommended by this House assembled that the *Medical Directory of New York, New Jersey, and Connecticut*, Volume XLII, be published in the near future."

SPEAKER BAUER: Inasmuch as one of the Council Committee reports takes up this same subject, instead of being referred to a New Business Committee this resolution will be referred to the Reference Committee on Report of the Council—Part IV, Publications and Medical Publicity, of which Dr. Eggston is the chairman.

Section 31. (See 62) Basic Science Law

DR. CHARLES GULLO, Livingston: The following resolution is introduced by the Livingston County Medical Society:

"WHEREAS, there are people in the State of New York practicing the Healing Art without having adequate knowledge of the human body; and

"WHEREAS, experience has shown that it is most difficult and generally futile to effectively prosecute these people even when they have violated the Medical Practice Act; and

"WHEREAS, it is the duty of Organized Medicine to promulgate medical information and prevent fraudulent and inferior medical service to our people; now, therefore, be it

"Resolved, that the House of Delegates of the New York State Medical Society hereby authorizes and instructs its Legislative Committee to present to the Legislature of the State of New York a suitable bill to correct this condition and that such bill shall provide substantially as follows:

"An Act to provide for examination in the basic sciences, authorizing the Board of Regents to issue a Certificate of Proficiency in the basic sciences, which Certificate shall be a prerequisite to eligibility for examination for license to practice medicine and surgery, osteopathy, osteopathy and surgery, as now prescribed by law, dentistry, or any other system or method of healing that may hereafter be legalized in the State of New York, to define the basic sciences, the practice of healing, a license, and to provide penalties for the violation of this Act.

'Section 1. Definition as used in this Article:

"Wherever the term, "Practicing Healing," or "Practice of Healing" is used in this Act unless otherwise specifically defined, the same shall be understood and construed to mean and include any person not hereinafter excepted from the provisions of this Act who shall in any manner for any fee, gift, compensation, or reward, or in expectation thereof, engage in, or hold himself out to the public as being engaged in the practice of medicine or surgery, the practice of osteopathy, the practice of any legalized method of healing, or the diagnosis, analysis, treatment, adjustment, correction, or cure of any disease, injury, defect, deformity, infirmity, ailment, or affliction of human beings, or any condition or conditions incident to pregnancy or childbirth or examination into the fact, condition, or cause of human health or disease or who shall for any fee, gift, compensation, or reward, or in expectation thereof, suggest, recommend, or prescribe any medicine or any form of treatment, correction, or cure therefor; also any person or persons, not hereinafter excepted from the provisions of this Act, individually or collectively who maintains an office for the reception, examination, diagnosis, or treatment of any person for any disease, injury, defect, deformity, or infirmity of body or mind, or who attaches the title of Doctor, Physician, Surgeon, Specialist, M.D., M.B., D.O., D.C., or any other work, abbreviation, or title to his name indicating or designed to indicate that he is engaged in the practice of healing.

'Section 2. Qualifications

"No person shall engage in the "Practice of Healing" unless he shall first have complied with the following prerequisites:

"First: He must pass an examination given by the Board of Regents through its Board of Medical Examiners in the Basic Sciences—namely: anatomy, physiology, physiologic chemistry, bacteriology, pathology, and hygiene—and upon satisfactorily passing such an examination shall receive a Certificate of Proficiency in the Basic Sciences which shall not be interpreted as conferring the right to engage in the practice of healing.

"Second: After receiving said Certificate of Proficiency, he must pursue other studies as established by law and appear before the Board of Choice of the Board of Regents for further examination and having fulfilled other requirements prescribed by law, he may be licensed to practice.

'Section 3. Exemptions

"All persons already licensed prior to enactment of this Act.

'Section 4. Penalty

"Any person violating any provision or provisions of the foregoing Sections shall be guilty of a misdemeanor punishable by law."

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business A, of which Dr. Masterson is chairman.

Section 32. (See 66)

Amendment to "Principles of Professional Conduct"

DR. HAROLD B. DAVIDSON, New York: Mr. Speaker, Ladies and Gentlemen of the House, I am

that designation has already been made, but there are others to be made.

SPEAKER BAUER: This is referred to the Reference Committee on New Business C, of which Dr. Carroll is the Chairman.

Dr. Irving has a communication along the same line and I would ask him to read that now.

SECRETARY IRVING: This is on the stationery of The Homeopathic Medical Society of the State of New York, and it is addressed to the Speaker of the House of Delegates, Medical Society State of New York Convention, Hotel Statler, Buffalo, New York, under date of May 1, 1943:

"Dear Sir:

"At the annual meeting of the Homeopathic Medical Society of the State of New York held on Thursday, April 29, 1943, the following resolution was adopted:

'WHEREAS, The Board of Regents of the State of New York is called to act upon and deliberate many aspects of medicine and related medical problems, and whereas the medical profession cannot properly be represented except by a competent physician, The Homeopathic Medical Society of the State of New York therefore endorses the name of Dr. Chas. Gordon Heyd, of New York City, for appointment on the Board of Regents of the State of New York, since we feel that the medical profession should be represented in the deliberations of this august body.'

"Fraternally yours,

FRANK J. BORRELLI, M.D., *President*"

(Applause)

SPEAKER BAUER: That will be attached to the resolution and referred to the Reference Committee on New Business C, together with the resolution.

Are there any other resolutions to be introduced at this time?

.... There was no response

Section 40

Announcements by the Speaker

SPEAKER BAUER: I invite your attention to the

fact that there will be an opportunity to introduce resolutions in the final session tomorrow afternoon only by a two-thirds vote. I hope nobody will wait that long because we will be very cramped for time. There will be further opportunity for introducing resolutions this afternoon and tomorrow morning, but so far as possible please try to get your resolutions in by this afternoon.

The Reference Committees, as I told you, are going to be cramped for space. The tables are in here, but those who will have to continue their deliberations during the session of the House will find room on the eighteenth floor, in Room 1814.

I hope the Reference Committees will meet as promptly as they can so that as many as possible will be able to get their reports in this afternoon. All officers and members of committees who are interested in any of the resolutions or in any of the reports should seek out the reference committees to whom they have been referred so that you can state your views to them.

SPEAKER BAUER: Gentlemen, the officers of the Society and the Sections were considerably uneasy as to the attendance we might have this year in view of the rather stringent conditions of transportation and difficulty in getting away. Now I am glad to say that everyone is very much pleased that this promises to be a well-attended meeting. There apparently was no hesitation or worry on the part of the exhibitors because they came out in full force, and we owe them a debt of gratitude for coming here and getting their equipment set up under the difficulties they had in transporting their material. I hope, therefore, that every member of the House will see to it that at some time during the meeting he visits all the exhibits which have been prepared, both the technical and the scientific exhibits.

I have another announcement concerning a change in one of the reference committees. Dr. Kelley, who was scheduled to be a member of the Reference Committee on New Business C, is not here. Dr. James B. Lawler, of Oneida, is appointed in his place.

If there are no further resolutions, the House will stand in recess until 3:00 P.M.

(At 12:00 M. a recess was taken.)

Afternoon Session

May 3, 1943

The session convened at 3:15 P.M., pursuant to recess.

SPEAKER BAUER: The House will be in order.

Section 41.

Introduction of President-Elect Zoe Allison Johnson, M.D., of the American Medical Women's Association

SPEAKER BAUER: Members of the House, we have a distinguished visitor here this afternoon, and I am going to ask Dr. J. Stanley Kenney, of New York, to present her to us.

DR. J. STANLEY KENNEY, New York: Mr. Speaker and Members of the House, I have the honor and the pleasure of presenting to you Dr. Zoe Allison Johnson, President-Elect of the Alleghany County Medical Society in Pennsylvania and President-Elect of the American Medical Women's Association. (Applause)

SPEAKER BAUER: Dr. Johnson, I believe this is the first time this Society has had the honor of having the President-Elect of the American Women's Medical Association here. We are delighted to welcome you, and hope you will say a few words to us now.

DR. ZOE ALLISON JOHNSON: Mr. Speaker and Members, I am very happy to have this courtesy extended to me. As one delegate from the State of Pennsylvania to their House of Delegates, I bring the greetings of the Pennsylvania State Medical Society.

I have one other thing that I should like to say. No doubt you have been properly thanked, or if you have not been you will be by the proper representative, Dr. Barringer, the Chairman of the Committee for Securing Commissions for Women Physicians in the Army and Navy, for the efforts you made in our behalf. However, I want you to know that all of the women who have worked so hard for this want

"WHEREAS, such physicians (with the exception of interns) are not included as beneficiaries under the Workmen's Compensation Law; and

"WHEREAS, disability resulting from injury or illness sustained as a result, and in the course of such employment may markedly diminish or entirely dissipate the earning power of such physicians; be it hereby

"Resolved, that the Medical Society of the State of New York initiate measures, through appropriate channels, to cause the Workmen's Compensation Law to be so amended as to provide for the inclusion of the class of physicians above described as beneficiaries under that Law."

In explanation, I might say that the reason for the introduction of this resolution is that a physician, one of our members, a pathologist in one of our hospitals, contracted tuberculosis because of an exposure, we believe, in the routine of the work he was called upon to perform. The Compensation Law covers interns who so contract tuberculosis, but not paid staff physicians. The purpose of this amendment is to remedy that injustice.

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business C, of which Dr. Carroll is chairman.

Section 36. (See 65) Practical Nurse Training

DR. GEORGE W. KOSMAK, *New York*: I would like to introduce this resolution:

"WHEREAS, there has long existed an evident need for another type of nursing service of a less demanding character than that hitherto supplied by the highly trained professional registered nurse group, for those patients, for example, afflicted with simple illness, undergoing convalescence from previous operations or confinements, or suffering from disabling chronic disease; and

"WHEREAS, this need has been intensified during the present emergency by the lack of available nurses for civilian and hospital needs; and

"WHEREAS, there are at present inadequate facilities for the procurement and training for this special practical nurse group; therefore, be it

"Resolved, that the House of Delegates of the Medical Society of the State of New York endorse the movement to extend the facilities for training such practical nurses and likewise commend the efforts by the Nursing Council of this State in the procurement of candidates for such training."

SPEAKER BAUER: This is referred to the Reference Committee on New Business C, of which Dr. Carroll is the chairman.

SPEAKER BAUER: Are there any other resolutions to present?

Section 37. (See 56) Commendation of Dr. Emily D. Barringer

DR. ALBERT A. GARTNER, *Erie*: This is a resolution that was passed by the Medical Society of the County of Erie, and I was asked to read it here today:

"WHEREAS, women physicians have been active in the treatment of civilians, regardless of sex; and

"WHEREAS, the Medical Department of the United States Army up to recently has refused to commission women physicians as medical officers; therefore be it

"Resolved, that the Medical Society of the County of Erie go on record as commending Dr. Emily D. Barringer for her stand and constant effort in securing commissions for women physicians, and that this resolution be read at the meeting of the House of Delegates of the Medical Society of the State of New York."

SPEAKER BAUER: That resolution is referred to the Reference Committee on New Business A, of which Dr. Masterson is chairman.

Section 38

American Medical Women's Association—Commendation Received for Aid in Securing Commissions for Women Doctors

SPEAKER BAUER: The Secretary has a communication on this same subject, which I will ask him to read at this time.

SECRETARY IRVING: This is a letter from Emily Dunning Barringer on the stationery of the American Medical Women's Association, Inc., dated April 29, 1943, and is addressed:

House of Delegates, Medical Society of the State of New York
Buffalo, New York

To the Members of the House of Delegates:

As Chairman of the Special Committee, "Commissions for Women Physicians in the Army and Navy" of the American Medical Women's Association, I am writing to send the heartiest thanks of our Committee to the Members of the House of Delegates of the Medical Society of the State of New York for the magnificent support that it has given the women physicians in their recent struggle to attain proper Wartime Rating in the Medical Corps of the United States Army and Navy.

If it had not been for the generous and gallant stand of the House of Delegates of New York State, not once but on several occasions, it is more than likely that the earnest effort of the women physicians would have been of no avail.

It will be a matter of lasting gratification to the women physicians of New York State that their State Society was the first to have the vision and the courage to blaze a trail for us at a time when public opinion was in doubt as to the justice of our quest.

With our profound appreciation, believe me,

Respectfully yours,

EMILY DUNNING BARRINGER

(Applause)

SPEAKER BAUER: Dr. Barringer, I am sure I speak for the House in thanking you for the letter just read by the Secretary. It will be entered in our minutes.

Section 39. (See 67)

Board of Regents Appointment Suggested

DR. B. WALLACE HAMILTON, *New York*: This resolution has been endorsed by the New York County Medical Society, and now we ask for its endorsement by this House:

"Resolved, that the House of Delegates of the Medical Society of the State of New York respectfully recommend and urge upon the joint caucus of the Senate and Assembly of the State of New York the designation of Dr. Chas. Gordon Heyd as Medical Representative on the Board of Regents of the University of the State of New York."

In introducing this resolution we are quite aware unofficially that this designation to succeed Dr. Madill will be quite impossible as Dr. Madill was a resident of the Fourth Judicial District, and that

reduces abortions; healthier babies, since it permits child spacing—and studies by the United States Children's Bureau show that babies born two or three years apart have better chance of life and health. It assures greater emotional security in family life; and it offers sound methods of birth control medically prescribed.

Planned parenthood clinics can perform an excellent public health service by provision of medical advice on family planning through private physicians and public clinics; education of the public in relation to drugstore and other nonmedical sources of information on contraception and instruction; education of the public in prevention of disease; referral of patients to private physicians or other clinics for suspected or actual cancer, suspected or actual tuberculosis, venereal disease, sterility, and marriage counsel.

The immediate thought, then, is: shall organized medicine lead the public in medical matters, or shall it follow under coercion of public opinion?

The prophecy of Dr. William H. Ross, when he was president of the Medical Society of the State of New York in 1931, which I shall take the opportunity of quoting here, has been amply fulfilled and will be even more completely fulfilled in the future. At that time he said: "Social changes will continue to increase in America, and social organizations will become more and more active. It will be better for the future position of the profession of medicine to guide the advent of these activities, determine their soundness, and give them leadership in medical matters. It is medicine's obligation to furnish leadership, and in leadership rests the future position of medicine in public opinion."

I offer the following resolution:

"WHEREAS, the American Medical Association has recommended in its resolution of June 8, 1937, that the legality of the use of contraceptives be made clear to physicians; that the Association undertake investigation of contraceptive devices and methods; that medical students be instructed in the problems of human fertility; and that the dissemination of contraceptive advice be under medical control; and

"WHEREAS, the law of New York State, according to Justice Crane's opinion, 222 N. Y. 192 (1918), supports the physician 'who in good faith gives. . . (contraceptive) advice to a married person to cure or prevent disease. . .'; and

"WHEREAS, the public looks to the medical profession for leadership in medical matters involving the health of the people of the State; therefore be it

"Resolved, that the Medical Society of the State of New York approves the giving, by physicians, of information relating to pregnancy spacing and fertility to married women when in the opinion of the physician such advice is indicated for the maintenance of health or the prevention and cure of disease."

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business B, of which Dr. Swift is chairman.

Section 47. (See 75)

Foreign Physicians Survey

DR. JOSEPH C. O'GORMAN, *Erie*: I wish to offer the following resolution concerning foreign physicians:

"WHEREAS, medical care is an integral part of plans for the relief and aid to peoples in the stricken foreign countries; and

"WHEREAS, citizens of the United States and graduates of the medical faculties of the United States are ineligible to apply for licensure to practice medicine in Continental Europe and the British Isles; and

"WHEREAS, there are in the United States of America many physicians—the refugee, the exiled, and the expatriate—who are eligible to practice in Continental Europe and the British Isles; and

"WHEREAS, these physicians are ineligible for service in the armed forces of the United States; and

"WHEREAS, statistics record that approximately 50 per cent of the graduates of the medical faculties abroad, examined for licensure in the United States, failed; and

"WHEREAS, the licensed and unlicensed refugee, exile, and expatriate physicians in the United States are denied the privilege of serving the United States or their own country; and

"WHEREAS, these physicians know the language, the people, and the customs, and are eligible for service in their respective countries; therefore be it

"Resolved, that the Medical Preparedness Committee of the Medical Society of the State of New York make a survey of physicians available and eligible to practice medicine in Continental Europe and the British Isles, and report to the Procurement and Assignment Committee of the Medical Society of the State of New York; and be it further

"Resolved, that the Procurement and Assignment Committee of the Medical Society of the State of New York proceed to form a corps of these available and eligible physicians for service, when and where needed, in relief and aid areas."

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business A, of which Dr. Masterson is chairman.

Are there any other resolutions?

. . . There was no response . . .

SPEAKER BAUER: If there are no other resolutions to be introduced at this time, are any Reference Committees ready to report?

Section 48. (See 11)

Report of Reference Committee on Report of the Council—Part VII: Legislation

DR. WALTER P. ANDERTON, *New York*: Your Reference Committee on Part VII of the Council's Report—Legislation—has studied this report and the supplementary report and the final bulletins from our Legislative Bureau. Many bills were introduced into the State Legislature's recent session relating to public health, medical education, and medical practice. It is to be noted with approval that Governor Dewey has signed the bill allowing reasonable personal income tax deductions for unusual medical expenses and the bill permitting certain professional members of the armed forces to apply for renewal of license registration without examination within three months after ending military service.

The bill to license chiropractors failed to emerge from the Assembly Rules Committee. On the other hand, the bill defining radiology as part of the prac-

to thank you because they know that the New York State group was one of the first groups that were behind them. I thank you very much for that in the name of the American Medical Women's Association. (Applause)

SPEAKER BAUER: Are there any reference committees ready to report?

Section 42. (See 1)

Report of the Reference Committee on Credentials

SPEAKER BAUER: The Chairman of the Committee on Credentials will give the report on the registration to date.

SECRETARY IRVING: Present here today:

Officers and Past-Presidents.....	32
Delegates.....	142
making a total of.....	174

SPEAKER BAUER: Is any reference committee ready to report?

... There was no response ...

SPEAKER BAUER: While we are waiting, the Secretary will read a letter.

Section 43.

Women's Medical Society of New York State—Letter of Commendation

SECRETARY IRVING: This is from the President of the Women's Medical Society of New York State, addressed to Dr. George W. Cottis, President, and Delegates of the Medical Society of the State of New York, and reading:

"Gentlemen:

"The Women's Medical Society of New York State at its annual meeting, held at the Town Club of Buffalo, May 3, 1943, unanimously passed the following resolution:

"WHEREAS, the House of Delegates of the Medical Society of the State of New York has for a period of over two years gone on record as giving women physicians vigorous support in their effort to obtain commissions in the Medical Reserve Corps of the United States Army and Navy; and

"WHEREAS, the women physicians of this State feel that the recent successful passage of legislation to this effect is due in great part to the wholehearted endorsement of the Medical Society of the State of New York; therefore be it

"Resolved, that the Women's Medical Society of New York State express their profound appreciation and tender their heartiest thanks to their men colleagues."

"WOMEN'S MEDICAL SOCIETY OF NEW YORK STATE
By Marguerite P. McCarthy, President"

SPEAKER BAUER: That will be entered in our minutes.

While we are waiting for the reference committees, are there any further resolutions to be introduced?

Section 44. (See 83)

Remission of Dues of Members Serving in Veterans Administration Facility

DR. JOHN J. BUETTNER, Onondaga: This resolution is introduced on behalf of the Medical Society of the County of Onondaga:

"WHEREAS, at a recent meeting of the Comitia Minora, the motion was passed that the delegates to the Annual State Meeting soon to be held in

Buffalo be instructed to present a resolution to the House of Delegates that the dues and assessments of members of the county societies who are enrolled in the Veterans Administration Facility for the duration be remitted while they are temporarily removed from active civilian practice in the same manner as those members in the United States Public Health Service.

"The reason prompting this action is the fact that one of our members has gone into the Veterans Administration Facility for the duration, and we have carried on a considerable correspondence in the hope of having his dues and assessments remitted, only to find that this is not possible unless the House of Delegates takes some action at their meeting.

"The Comitia Minora, with the approval of the Onondaga County Medical Society, requests that their delegates introduce the following resolution at the coming meeting of the Medical Society of the State of New York; therefore, be it

"Resolved, that members of component county medical societies entering the Veterans Facility Administration on a temporary basis have their dues remitted for the duration."

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business C, of which Dr. Carroll is chairman.

Section 45. (See 74)

Mental Hygiene State Administration

DR. JOHN J. BUETTNER: I have another resolution, which concerns mental hygiene, and which reads:

"WHEREAS, the medical profession is interested in any change from medical administrative control of our mentally sick because of the possibility of affecting detrimentally the service which has been built up to be one that is looked upon throughout the country and the world as a model; be it

"Resolved, that we express to Governor Dewey full confidence in his purpose and design and hope that he may appoint capable and experienced personnel for both administrator and director."

SPEAKER BAUER: This resolution is referred to the Reference Committee on New Business A, of which Dr. Masterson is chairman.

Section 46. (See 80)

Planned Parenthood

DR. CHARLES C. TREMBLEY, Franklin: The American Medical Association took leadership in recognizing contraception as a medical measure in 1937, and has acted to implement their resolution since.

Following the American Medical Association's action of 1937, the medical societies of ten states have passed resolutions recognizing contraception as a legitimate part of medical practice, an increasing interest in the subject being indicated by the fact that five were passed in 1942.

The law of the State of New York recognizes the physician's right to give contraceptive advice in the practice of medicine, as evidenced by the interpretation of Judge Crane in 1918.

Planned parenthood offers the opportunity for: healthier mothers, since it enables mothers to regain their strength and health between pregnancies, enables women with serious disease to avoid pregnancies which may further endanger their lives, and

medical profession, the programs made available for postgraduate teaching have been of such a high order that twenty-six county medical societies of the State have demanded and have been granted a total of ninety-four lectures during the past year. This total is about the same as the previous year's record, which was the highest ever attained.

By cooperation of the State Department of Health in presenting subjects which the department considered of importance in its medical education program, our committee has received very substantial financial assistance from this department, thus enabling it further to increase its work and extend its services.

The *Course Outline Book*, published by the committee and distributed to the county medical societies, medical schools, and various health and educational agencies, is a compendium of available postgraduate educational courses of which our Society may well be proud. Every phase of the practice of medicine is covered by these courses and changes in subjects and lecturers are made with each new yearly edition. A study of the subjects and courses asked for from year to year is an interesting commentary on medical trends. In the past year lectures on sulfonamide therapy and plasma and transfusion therapy have been most widely in demand, with eleven lectures given on each subject, together with eight on cancer, nine on war medicine, six on general medicine, and only three on obstetrics. In addition to the usual lectures, regional meetings and teaching days, embracing districts covering several counties, have this year proved to be a big drawing card, and it is expected that such meetings will be much in demand in the future.

Your committee, in commending Dr. Mitchell and his committee for their outstanding accomplishments in providing continuous medical education for the medical profession of this State, recommends that he and his committee be granted every facility and ample funds to continue this monumental work, and also recommends that the constituent county medical societies make increasing use of the available programs, for by so doing they will provide constantly improving medical services to their communities.

I move the adoption of the reference committee's report, which is signed by Albert F. R. Andresen, Conrad Berens, William J. Gracey, Lyman C. Lewis, and Leo C. Reimann.

.... The motion was seconded

SPEAKER BAUER: It has been regularly moved and seconded that the report and supplementary report of the Council—Part I, Postgraduate Education, be approved. The reference committee's report in substance reviews the work of the Committee on Public Health and Education on postgraduate education, and recommends that the county societies make further use of its facilities. Is there any discussion on it?

DR. GEORGE W. KOSMAK, New York: May I ask of the committee that they eliminate the word "only" before the "three lectures on obstetrics"?

DR. ANDRESEN: Yes, we can do that. I am sure my committee will be agreeable to that.

SPEAKER BAUER: Dr. Andresen said he will take out the word "only" as requested in the Reference Committee's report.

Other than that, are there any comments or discussion?

The question was called for, and the motion was put to a vote and was unanimously carried

Section 51. (See 10)

Report of Reference Committee on Report of the Council—Part III: School Health

DR. W. GUERNSEY FREY, JR., Queens: The Council Committee on Public Health and Education, the Subcommittee on Child Welfare, and the Subcommittee on 4-H Clubs held a meeting in Syracuse on October 26, 1942, with representatives of the New York State Department of Education and the New York State Association of School Physicians. Your reference committee reviewed the Council's report on this meeting and would comment on the several items therein as follows:

1. Your reference committee approves the establishment of minimum standards for instruction of undergraduate medical students in School Health and feels that at the very least the students should become acquainted with the various agencies which are available.

2. The recommendation that more postgraduate instruction in school health be made available is approved, with the suggestion that this be coordinated as far as possible with the activities of local postgraduate education and school health committees.

3. Your reference committee feels that the Council's comment concerning requirements for part-time school physicians is ambiguous; your reference committee calls attention to the "Medical Standards for Physicians in the Schools" proposed by the American Academy of Pediatricians, as published in the *J.A.M.A.*, February 20, 1943.

4. and 5. Concerning the annual physical examination of all school children (which is required by State law) and the correction of remediable defects, your reference committee heartily commends the Council's effort to secure greater cooperation between school physicians and family physicians in regard both to annual examinations and to treatment of physical defects.

6. The recommendation of the Council that every component county society appoint a committee or subcommittee on school health is endorsed by your reference committee.

I move the approval of this portion of the reference committee's report.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. FREY: The Council reports the appointment of three representatives of the Medical Society of the State of New York (Dr. Beaven, of Rochester, and Drs. Hiss and Silverman, of Syracuse) to confer upon request with State Education Department officials charged with arranging the program of health education for high school students. Your reference committee recommends that the House approve this action of the Council.

I move the adoption of this portion of the report.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. FREY: Finally, the Council reports that "several conferences were held by the Chairman of the Committee on Public Health and Education with Dr. Hiram Jones, State Director of Physical Fitness of the Office of Physical Fitness of the State War Council, regarding cooperation between the Medical Society of the State of New York and several government and voluntary agencies. The plan for providing essential health examinations in connection with the Physical Fitness Program was developed and

tice of medicine also remained in committee when the Legislature adjourned.

Your committee takes this opportunity to commend highly the Council Committee on Legislation—Dr. John L. Bauer, chairman, and Drs. Walter W. Mott and Leo F. Simpson—for their diligent performance of their duties, as well as the Executive Officer, Dr. Joseph S. Lawrence, whose unremitting zeal and understanding has been one of the best assets of our Society.

This report is respectfully submitted by the Committee consisting of Walter P. Anderton, *chairman*, John J. Buettner, B. Wallace Hamilton, Harry W. Miller, and Eugene H. Coon.

I move the adoption of the Reference Committee's report.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

SPEAKER BAUER: Thank you, Dr. Anderton!

Are any other Reference Committees ready to report?

Section 49

Report of Reference Committee on Reports of Secretary, Censors, and District Branches

DR. SCOTT L. SMITH, *Dutchess*: Your Reference Committee on the Report of the Secretary would call particular attention to the efficiency and energy with which the administration of the Society has met the demands of our first war year. It has had on the one hand to contend with greatly increased general activities and on the other hand with reduced funds to meet the extra effort. Up to date, we are informed that the remissions of assessments for war service have totaled \$40,150. This loss of revenue has been met by the delayed publication of the *Directory*, by a reduction in the cost of the *JOURNAL*; and by a reduction of the office force, which still permits continuance of its full-time job.

We would commend the Secretary and his staff for the manner in which this difficult situation has been handled.

The changes in setup of the Council Committee:

1. A Subcommittee on Tuberculosis and Chest Diseases;
2. The division of the Maternal and Child Welfare Committee into two parts, Maternal Welfare, and Child Welfare,

would appear to be definitely indicated by the increased activities in these fields.

The new Council Committee to Study the Present and Future Status of Foreign Physicians, practicing or wishing to practice here, is urgently needed to explore and solve the problem of this difficult and potentially very dangerous field. Your Committee would approve and recommend the continuance of these four committees.

I move the adoption of the Secretary's Report.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. SMITH. On the Report of the Censors, your reference committee would note that the Board had only one appeal referred to it, and that it upheld the decision of the county Board of Censors from whose decision the appeal was taken. This decision had rejected the application for reinstatement of a member, dropped for nonpayment of dues. It is of further interest to note that the appellant has not exercised his rights under the Bylaws to file an ap-

peal with the House of Delegates. Your committee would approve the Report of the Censors.

I move its approval.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. SMITH: Reports of the District Branches. With the years, it becomes more evident what an extensive field the District Branches fill in coordinating, consolidating, and crystallizing the educational work of the county societies. These results are effected by either of the two types of meetings commonly held by the District Branches—the so-called clinical meeting or the didactic addresses.

It is apparent, from careful study of the eight District Branch reports, how much thoughtful effort has been put into the selection and carrying out of the programs of these meetings.

Your committee notes with interest that our State President has found time to attend and address all of these Branch meetings and has in each case spoken along the line of his presidential address on the future of medicine.

In these times of stress, when it is difficult to attend meetings, the desirability of holding annual District Branch meetings has often been discussed. It is the opinion of your committee that the important educational role of these meetings makes their contribution most desirable, and we urge it in spite of the difficulties.

I move the adoption of the eight District Branch reports.

... The motion was seconded, and as there was no discussion it was put to a vote and was unanimously carried

DR. SMITH: Now I move the adoption of the report, signed by Scott L. Smith, William G. Cooper, Clifford F. Leet, Daniel A. McAteer, and Madge C. L. McGuinness, as a whole.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

SPEAKER BAUER: Are any other reference committees ready to report?

... There was no response

SPEAKER BAUER: Are there any further resolutions to be introduced?

... There was no response

SPEAKER BAUER: If there are no other reference committees ready to report at this time and no further resolutions to be introduced, I will declare a recess for ten minutes. Will you kindly try to get your reports in as soon as possible? The first order of business tomorrow afternoon is the elections, and we would like to get everything behind us that we can today, so that we will have the major part of our business disposed of by that time.

(There was a ten-minute recess at this point.)

SPEAKER BAUER: The House will be in order.

We have two reference committees ready to report, and I hope by the time we have those reports acted upon some more will be ready.

Section 50. (See 8)

Report of Reference Committee on Report of the Council—Part I: Postgraduate Education

DR. ALBERT F. R. ANDRESEN, *Kings*: This report, so beautifully supplemented by the committee's exhibit on the mezzanine floor, is a tribute to the remarkable energy and vision of its chairman. In spite of the war, with its extra demands on the

DR. EGGSTON: This is in the way of a summary: This is a crucial period in our Society, so what more appropriate time could be anticipated wherein some of the Society's net worth might be more advantageously utilized? A long-sighted, constructive policy must maintain in this Society, as a contribution to the winning of the war as well as to the peace that is to follow. The contributions and policy of the medical profession may well be the keystone of a better human understanding and a contribution to an enduring peace.

I move the adoption of that portion of the report. . . . The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. EGGSTON: Now I move the adoption of the report, signed by Andrew A. Eggston, as chairman, and Drs. Alfred M. Hellman, J. P. Henry, Charles A. Anderson, and A. A. Gartner, as a whole.

. . . . The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

Section 53. (See 16)

Report of Reference Committee on Report of the Council—Part IV: Publications and Medical Publicity—Special Committee on Publication

DR. ANDREW A. EGGSTON, *Westchester*: As to the Report of the Special Committee on Publications, the Committee on Publications recommends that the House of Delegates continue this Special Committee of the Society working under supervision of and reporting to the Council, and that the House give the following directive as to the continuance of its personnel in keeping with the action of the House in 1942:

"The Committee on Publication shall consist of the general manager, the treasurer, the director of the Public Relations Bureau, the literary editor, and one trustee, who shall be chairman; one trustee to serve shall be selected by the Chairman of the Board of Trustees, and the literary editor shall be selected by the Committee on Publication at its first meeting after this meeting of the House of Delegates, the former literary editor not voting. This is deemed to be the most satisfactory way to choose the incumbent of this position, who thereupon becomes a member of the Committee, because of the familiarity of the Committee with the duties involved and the qualifications for the satisfactory performance of them."

The reference committee, consisting of Andrew A. Eggston, chairman, Charles A. Anderson, Alfred M. Hellman, J. P. Henry, and A. A. Gartner, recommends the adoption of this report, and I so move.

. . . . The motion was seconded, and as there was no discussion, the motion was put to a vote and was unanimously adopted

Section 54. (See 30, 52)

Report of Reference Committee on Report of the Council—Part IV: Publications and Medical Publicity—Resolution on Medical Directory

DR. ANDREW A. EGGSTON, *Westchester*: There was also a resolution introduced by the New York County Medical Society on the publication of a *Directory*. Shall I read that, before reading our recommendation?

SPEAKER BAUER: Yes.

DR. EGGSTON: The resolution reads as follows:

"WHEREAS, the last issue of the *Medical Directory of New York, New Jersey, and Connecticut*, Volume XLI, 1941-1942, is in many instances out of date because of the absences of practitioners of medicine in the armed forces and because of removals; therefore be it

"Resolved, that it is recommended by this House assembled that the *Medical Directory of New York, New Jersey, and Connecticut*, Volume XLII, be published in the near future."

Your reference committee recommends the adoption of this resolution, and that the *Medical Directory of New York, New Jersey, and Connecticut*, Volume XLII, be published as soon as physically possible, although it would probably cost at this time more than \$30,000 net to the Society as against the cost of the last issue of \$21,000.

I so move.

SPEAKER BAUER: I believe this recommendation is rather out of order in that the House has already adopted the prior report of this reference committee approving that the *Directory* be published as soon as possible, and, if possible, in 1944. I think it is not necessary to repeat our action. If there is no objection by the House, therefore, we will take no action on this resolution. It has already been covered in the reference committee's report already adopted. Hearing no objection, I will so rule.

DR. EGGSTON: That is all, for the time being.

SPEAKER BAUER: Thank you, Dr. Eggston!

Is there any other reference committee that is ready to report?

Section 55. (See 37)

Report of Reference Committee on New Business A—Commendation of Dr. Emily D. Barringer

DR. JOHN J. MASTERSON, *Kings*: I wish first to report on the resolution presented by the Medical Society of the County of Erie, reading:

"WHEREAS, women physicians have been active in the treatment of civilians, regardless of sex; and

"WHEREAS, the Medical Department of the United States Army up to recently has refused to commission women physicians as medical officers; therefore be it

"Resolved, that the Medical Society of the County of Erie go on record as commending Dr. Emily D. Barringer for her stand and constant effort in securing commissions for women physicians and that this resolution be read at the meeting of the House of Delegates of the Medical Society of the State of New York."

It is with great pleasure that I report our recommendation on this resolution: The Committee approves this resolution and congratulates Dr. Barringer on the successful accomplishment of her untiring efforts in securing commissions for women physicians in the armed forces. It is with very great pleasure that we recommend the spreading of this resolution on the Minutes of the House of Delegates.

I move its adoption.

. . . . The motion was seconded

SPEAKER BAUER: The recommendation of the reference committee is one of commendation to Dr. Barringer. Is there any discussion on it? If not, I suggest that we give our testimonial to Dr. Barringer by a rising vote.

approved by the Council." Since this item is included in the portion of the Council's report that concerns the school health program, it is assumed that the individuals affected are principally school children. This would appear to be an effort to carry out the mandate of the 1942 House of Delegates that "the Council. . . continue its efforts to bring about the changes whereby supervision of health and health problems among children of school age will be under the charge of physicians," etc.

Your reference committee heartily endorses any activity of the Council guarding against lay domination, through physical training departments, or other State agencies, of medical personnel.

Your reference committee further recommends that in every community where physicians are appointed by school authorities to examine school and high school students that the county society invite the proper authorities to select the appointees from panels of physicians submitted by the county society.

I move the adoption of this portion of the committee's report.

. . . . The motion was seconded, and as there was no discussion, the motion was put to a vote and was unanimously carried

DR. FREY: Now I move the adoption of the report, signed by W. Guernsey Frey, Jr., Joseph H. Cornell, Ralph I. Lloyd, Walter G. Hayward, and Ralph Sheldon, as a whole.

. . . . The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

SPEAKER BAUER: Thank you, Dr. Frey!
Dr. Eggston, are you ready to report?

Section 52. (See 30, 54)

Report of Reference Committee on Report of the Council—Part IV: Publications and Medical Publicity

DR. ANDREW A. EGGSTON, *Westchester*: It is regrettable that the JOURNAL has to appear in an abridged form, but this is a necessary war economy. It is with pleasure that we note that the form and editorial policies of the JOURNAL maintain the same high quality. It is suggested that the book reviews be more prominently placed in the JOURNAL. The finances of the JOURNAL show a decrease in the cost to the Society in the past year of \$7,480.31, and this saving is in great part due to an increase in the advertising receipts. This fact is both interesting and encouraging, because at first glance conditions would anticipate a loss of the acceptable type of advertising. The Committee feels that extreme vigilance should always be exercised so that only the most generally acceptable types of advertising be admitted to the JOURNAL and *Directory*, and only an amount in proper proportion to the scientific matter. In general, your committee offers congratulatory commendations to the publication committee of the JOURNAL.

Your reference committee approves the decision not to publish a 1943 *Directory*. It is felt, however, that if conditions at all warrant publication of a 1944 *Directory*, this should be undertaken and, furthermore, that all physicians in the military services should have an adequate listing of their contributions to the armed forces of the nation. Such a new directory would be a sustainer of morale and would also be of much practical value. I move the adoption of that portion of the committee's report.

. . . . The motion was seconded

SPEAKER BAUER: You have before you the Report of the Reference Committee on the JOURNAL and the *Directory*. In substance the report commends the JOURNAL for its high standards and recommends that advertising be in proportion to its scientific content, and that the *Directory* be not published for 1943, but, if at all possible, it be published in 1944. Do you wish to consider those two items together or separately?

CHORUS: Separately.

SPEAKER BAUER: We will take up the JOURNAL first. Is there any discussion on the motion to commend the high quality of the JOURNAL and to restrict its advertising in proportion to its scientific content?

. . . . The question was called for, and the motion was put to a vote and was unanimously carried

SPEAKER BAUER: That portion of the report is adopted. We next come to the recommendation relative to the *Directory*. The committee approves the action of the Council in not publishing a *Directory* for 1943, but recommends that if at all possible it be published for 1944, and that it contain data relative to the men in the military service. I believe that is a correct statement of your recommendation?

DR. EGGSTON: Yes.

SPEAKER BAUER: Is there any discussion?

DR. EGGSTON: There is also a separate resolution before the House on that.

. . . . The question was called for, and the motion was put to a vote and was carried

SPEAKER BAUER: That portion of the report is adopted.

DR. EGGSTON: The bulletins for club talks should be continued and extended and be published in available form. The mailing list has been advisedly reduced for the bulletins from 819 to 544. An abridged list of interested members and organizations should continue to receive these publications.

I move the adoption of that portion of the report.

. . . . The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. EGGSTON: There has been a decrease in the cost of the Public Relations Bureau of \$6,805.75. These economies might well be continued until urgent public issues call for the judicious expenditure of a larger amount. It will require a keen sense of foresight to decide judiciously when, and for what, and how much of our surplus capital should be spent to improve our Public Relations.

Your committee takes cognizance of the disposition of the instructions for the 1942 House of Delegates in regard to the compilation of current historic medical data, etc. This subject is again revived because it is felt that it is of great importance to the future of the Society. It is true that the problem of employment of office personnel is a difficult one and that costs have mounted. It is, therefore, suggested that the work of compilation of historic facts might well be undertaken by a committee composed of some of our historically minded members with the aid of a small secretarial staff. It is suggested that some of the savings in the cost of the JOURNAL and *Directory*, supplemented by a portion of investment dividends, be earmarked for the Society's historic archives. The printing of this material might judiciously be postponed.

I move the adoption of this portion of the committee's report.

. . . . The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

State against the active opposition of insurance companies and employers.

"The result of this has been an excess of over \$1,000,000 a year for upstate physicians, and

"WHEREAS, the multifarious duties of this Bureau and the obligation recently imposed for investigation; and

"WHEREAS, it is contrary to the best interests of the State Society, and the component medical societies, to have such onerous duties discharged by a part-time director; be it

"Resolved, that the Director of the Bureau of Workmen's Compensation shall be a member of the Medical Society of the State of New York on a full-time basis and, when appointed, in no way engaged in private medical practice; be it further

"Resolved, that the Medical Society shall appoint such full-time director on a contract basis for a minimum period of five (5) years; be it further

"Resolved, that the Board of Trustees determine the annual remuneration to such individual in keeping with the responsibility of the position and the administrative capacity of the individual. It is suggested that a remuneration of \$15,000 a year is adequate and would meet the present living conditions."

Recommendation: The committee approves the resolution in full, and urges early action by the Council and Board of Trustees in carrying into effect the recommendation of the resolution.

I move its adoption.

.... The motion was seconded

SPEAKER BAUER: It has been moved and seconded that this resolution be adopted. The resolution in substance covers the activities of the Workmen's Compensation Bureau, and recommends the appointment of a full-time director instead of a part-time director, who must give up all relation to private practice during the period of his appointment, which will be for a term of five years. The salary as recommended is \$15,000?

DR. MASTERSON: Well, it is suggested that it be that; but that is not recommended.

SPEAKER BAUER: A suggested salary—but that it be left to the Board of Trustees to determine what the salary shall actually be.

Is there any discussion?

DR. W. GUERNSEY FREY, JR., *Queens*: I wanted to raise a query rather than discuss it. Did you read the entire resolution as presented? Was there not something in it as presented whereby the man that was to be selected was to be paid by the various county societies in proportion to the amount of work done in those various counties? I thought there was in the resolution read by Dr. Heyd this morning something to that effect.

DR. MASTERSON: We deleted that.

DR. FREY: Then the resolution you read was not the same as that presented this morning?

DR. MASTERSON: Not quite. We made several changes in the resolution. There is one paragraph we deleted.

SPEAKER BAUER: Read the deleted paragraph.

DR. MASTERSON: It is the last one:

"Be it further recommended that this salary be apportioned amongst the State Society, per se, and one or other of the component medical societies, depending upon the numerical panel of physicians engaged in Compensation work."

I did not read that because we did not recommend it. I only read what we recommended.

SPEAKER BAUER: The committee, therefore, recommends the elimination of that paragraph from the original resolution.

Is there any further discussion?

... The question was called for, and the motion was put to a vote and was adopted

SPEAKER BAUER: Is there any other reference committee ready to report?

Section 59. (See 34)

Report of Reference Committee on Report of Council—Part VI: Medical Relief, Direct Payment of Medical Fees

DR. WILLIAM B. RAWLS: The committee recommends the acceptance with commendation of the report as a whole, and after studying the resolution introduced by the Nassau County Delegates, wishes to introduce the following substitute resolution:

"Be it resolved that the House of Delegates of the Medical Society of the State of New York go on record as favoring such change in the Federal Social Security Law as is necessary that will permit direct payment to the physician, and further recommends that the delegates to the A.M.A. be instructed to introduce a resolution requesting the A.M.A. to memorialize the proper authorities for such changes that are necessary in the Federal Security Law to allow direct payment to the physician."

Do you wish me to read the Nassau County recommendation?

SPEAKER BAUER: Yes, I think you had better, and then read the change.

DR. RAWLS: The introduced resolution by Nassau County reads:

"WHEREAS, the report of the Subcommittee on Medical Relief of the Council of the Medical Society of the State of New York, as published in the NEW YORK STATE JOURNAL OF MEDICINE, March 1, 1943, issue, states that doctors rendering authorized care to recipients of old age assistance of the Welfare Department are in many cases not receiving payment for their services because of the failure of the recipients of such services to pay to the physicians the money given them for such payment, and reports that the State Welfare Department has agreed to send an itemized bill to the patient of the old age group, definitely stating the amount due to the doctor; and

"WHEREAS, it is the feeling of the Nassau County Medical Society that this proposed step will not be sufficient to assure payment to the physician of his just fee; and

"WHEREAS, numerous complaints have been received from physicians in Nassau County of the inability of the physicians to collect such just fees because of the present regulations prohibiting the direct payment to the physicians by the Welfare Department for services rendered the recipients of relief in those categories which are covered by Federal 'reimbursement' regulations; be it hereby

"Resolved, that it is the opinion of the Nassau County Medical Society that attempts should be made to secure a return to the old system under which payment is made directly to the physician for medical services authorized by the Welfare Department; and be it further

... The motion was unanimously adopted by a rising vote

DR. EMILY D. BARRINGER: Thank you!

Section 56. (See 22)

Report of Reference Committee on New Business
A—Moreland Act Investigation

Dr. MASTERSON: On the resolution introduced by Dr. A. A. Eggston, of Westchester County, concerning the Moreland Act Investigation, and reading:

"WHEREAS, charges made against certain physicians in connection with the Moreland Act Investigation of the medical aspects of the Workmen's Compensation Law, if subsequently substantiated and proved by trial, would convict these physicians of acts which are clearly unethical; and

"WHEREAS, the prominent notice given these changes in the press may have led a portion of the public to infer that such actions are condoned or tolerated by the profession; therefore be it

"Resolved, by the House of Delegates of the Medical Society of the State of New York that all unethical activities in connection with the provision of medical service under the Workmen's Compensation Law are hereby unreservedly condemned and repudiated; and be it further

"Resolved, that the Medical Society of the State of New York urges its component county societies to take prompt and uncompromising action to the full extent of their disciplinary powers whenever a member is proved to be guilty of the alleged unethical practice."

Recommendation: The committee approves the resolution and moves its adoption.

... The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

Section 57. (See 21)

Report of Reference Committee on New Business
A—Amendment to Medical Practice Act

Dr. MASTERSON: On the next resolution introduced by Dr. B. Wallace Hamilton, of the Medical Society of the County of New York, concerning an amendment to the Medical Practice Act:

"Resolved, that the delegates of the Medical Society of the County of New York be instructed to urge the House of Delegates of the Medical Society of the State of New York to consider an amendment to the Medical Practice Act, Section 1264, 'Revocation of certificates; annulment of registrations.'

"2. The license or registration of a practitioner of medicine may be revoked, suspended, or annulled or such practitioner reprimanded or disciplined in accordance with the provisions and procedure of this article upon decision after due hearing in any of the following cases: (a) fraud and deceit, (b) conviction of crime or misdemeanor, (c) addict or drunkard, (d) untrue advertising and secret remedies, and (e) abortion"

and this is the suggested new matter:

"(f) Any physician participating in the division, transference, assignment, rebating, splitting, or refunding of his fee for medical care."

Recommendation: Approved with the recommendation that the resolution be referred to the Committee on Legislation, who shall determine, after conference with the Counsel of the State So-

ciet, any changes in the wording of the suggest amendment which will not conflict with the spirit the amendment. The Legislative Committee sh determine the opportune time for introducing t legislation.

I move its adoption.

... The motion was seconded, and as there w no discussion, it was put to a vote and was unar mously carried

Section 58. (See 20)

Report of Reference Committee on New Business
A—Full-Time Director of Workmen's Compensation Bureau

Dr. MASTERSON: The next resolution is introduced by Dr. Heyd, of New York, regarding the appointment of a full-time director of the Bureau o Workmen's Compensation of the Medical Society of the State of New York.

Do you want me to read that?

SPEAKER BAUER: We have had so many resolutions introduced that I am afraid it would not be clear in the minds of the delegates unless it is read again, so I think you had better read it again, despite the time it will take.

Dr. MASTERSON: As we have changed it, the resolution reads:

"WHEREAS, the amendment to the Workmen's Compensation Law in 1935 delegated specific functions to the Medical Society of the State of New York; and

"WHEREAS, it has been alleged through the public press that certain physicians have participated in practices contrary to the ethical principles of the Society; and

"WHEREAS, it is mandatory upon the Medical Society of the State of New York to investigate and try such alleged conditions; and

"WHEREAS, there has been set up a Director of the Bureau of Workmen's Compensation activities by the Medical Society of the State of New York in conjunction with the component societies; and

"WHEREAS, this Bureau embraces all activities, duties, and responsibilities under the amendment to the Workmen's Compensation Law of 1935:

"These duties and activities include qualification of physicians, licensing of x-ray laboratories, and medical bureaus operated by physicians and employees; they include hearings and trials and charges of violations of any of the provisions of the law, as well as investigation and follow-up of complaints; the Bureau serves as a collecting agency for physicians of the Society without cost to the physicians; the Bureau coordinates Workmen's Compensation in relation to the component county societies.

"The Director of the Bureau attends all arbitrations throughout the State.

"The Bureau maintains contact with the seventy insurance carriers operating under the amended Compensation Law, serves as a clearing house in arbitration matters for the carriers and the Labor Department; maintains active contact with the self-insurer organization; it also is concerned with the quality and type of legislation affecting Workmen's Compensation.

"The Director has been instrumental in obtaining uniform fee schedules for the entire

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tion and Policies, which was referred to us, reads:

"The Special Committee on Office Administration and Policies recommends that the House of Delegates continue this Special Committee working under supervision of the reporting to the Council, and that the House give the following directive as to continuance of its personnel in keeping with the action of the House in 1942:

"The Committee on Office Administration and Policies shall consist of the general manager, the business manager of the JOURNAL and DIRECTORY, the literary editor, the treasurer, and one member of the Board of Trustees to be appointed by the President of the Society, after consultation with the Chairman of the Board of Trustees."

That is approved by your reference committee, consisting of Andrew A. Eggston, Chairman, Charles A. Anderson, J. P. Henry, A. A. Gartner, and A. M. Hellman.

I so move.

DR. ALFRED M. HELLMAN, *New York*: I second the motion.

SPEAKER BAUER: This recommendation is merely approval of a continuation of the practice now in effect—namely, that this committee shall be continued.

DR. GEORGE W. KOSMAK, *New York*: I think the original recommendation contained the phrase that the member of the Board of Trustees should be the chairman of this committee.

SECRETARY IRVING: No, that was in the report of the other special committee, the Committee on Publications.

DR. KOSMAK: But the original intent of the motion would make it apply to this committee likewise.

SPEAKER BAUER: You are privileged to make an amendment to the motion, Dr. Kosmak.

DR. KOSMAK: I so amend it.

.... The motion was seconded

SPEAKER BAUER: Dr. Kosmak moves the amendment of the motion by making the member of the Board of Trustees the chairman of the Special Committee on Office Administration and Policies.

Is there any discussion on the amendment?

.... The question was called for, and the amendment was put to a vote and was unanimously carried

SPEAKER BAUER: Now you have the amended motion before you, which carries with it the recommendation for the continuation of this committee as it is at present set up, plus the amendment suggested by Dr. Kosmak which was just voted on. Are you ready for the question?

.... The question was called for, and the motion, as amended, was put to a vote and was unanimously carried

SPEAKER BAUER: Are there any other reference committees ready to report?

Section 61. (See 4, 5, 6, 7)

Report of Reference Committee on Report of the President, the President-Elect, and Speaker

DR. DAVID W. BEARD, *Schoharie*: On the Report of the President, the Medical Society of the State of New York in the opinion of this reference committee has been singularly fortunate in having had the considered wisdom and sagacity that has been exemplified in all of Dr. Cottis' official acts and utterances during this past year. In the trying and troubled times through which we are now passing,

his solid opinions and logical thinking have been substantial assets. His finger at all times has been on the pulse of medical trends. He has demonstrated remarkable cognizance of organized medicine's important and inseparable relationship to the changing social order. His talks before the various District Branches, his quoted and publicized speeches, have all shown evidence of his practical and wholesome grasp of the intricacies and perplexities of the serious problems that confront us as a profession.

In reviewing this Report of the President, we should like to call attention particularly to the last half of it, those portions referring to the great socioeconomic changes that this Society must be prepared to face. Let us quote briefly these remarks of his:

"No man can say how far the changes in our social organization will go before the end of the war, but no man can doubt the direction of the trend. Furthermore, it makes no difference whether we favor or dislike the trend. As long as this country remains a democracy, the people will decide."

He has reasonable and proper doubts that we are prepared to meet these imminent changes. We must prepare and have ready plans and proposals to meet any others that may be offered.

We are heartily in accord with Dr. Cottis' recommendation that a special committee be created to study and report on this problem. In this connection we respectfully refer to the supplemental report of this reference committee on the resolution introduced by Dr. Louis H. Bauer at the opening session of this House of Delegates.

We note with satisfaction his considered opinion regarding New York State doctors' full contribution to the war effort, not only in the supplying of the needs of the armed forces, but also in fulfilling the urgent demand of Selective Service and the requirements of the home front. These latter services have been unselfish and patriotic duties well performed.

The President has called attention to and has recommended the reading of the published and detailed committee reports. We urge compliance of the membership at large with this request that they may be better informed of the serious efforts of organized medicine in this State to cope with and attempt the solution of the vexing problems that confront us.

We would stress particularly the pressing need now to expand and activate the scope and plan of Medical Expense Indemnity Insurance. We believe that the best solution is a broad, unified, and comprehensive plan for medical care that can be distributed in conjunction with the well-accepted and established hospitalization plans, always safeguarding organized medicine's right to retain its proper influence and control.

We commend the President's complimentary references to the earnest and efficient work of all the various components that make up the administrative machinery of the State Society.

SPEAKER BAUER: I suggest that you move the adoption of that portion before you go ahead with the supplemental report.

DR. BEARD: I move the adoption of this portion of the reference committee's report.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. BEARD: The supplemental report of the President in reference to this House of Delegates

"Resolved, that the delegates representing the Nassau County Medical Society at the Annual Meeting of the House of Delegates of the Medical Society of the State of New York introduce resolutions calling upon the State Society to recommend to the New York State Department of Social Welfare that steps be taken to assure the payment of physicians for services rendered by making direct payment for such services to the authorized physician."

Now our substitute resolution reads:

"Be it resolved that the House of Delegates of the Medical Society of the State of New York go on record as favoring such change in the Federal Social Security Law as is necessary that will permit direct payment to the physician, and further recommends that the delegates to the A.M.A. be instructed to introduce a resolution requesting the A.M.A. to memorialize the proper authorities for such changes that are necessary in the Federal Social Security Law to allow direct payment to the physician."

The committee moves for the adoption of the substitute resolution.

DR. ABRAHAM KOPLOWITZ, *Kings*: I second the motion.

DR. BENJAMIN M. BERNSTEIN, *Kings*: Some of you will recall that last year a similar motion was made, and I said at that time that we were sometimes very paradoxical and changed our skins, as it were, as the chameleon does, when the move hits us and we get touched somewhere in our pocket books.

We are accepting socialized medicine if we accept payment from the government for care given to a ward of the government. I think we want that very clearly understood before we vote to accept this resolution. Either we are going to maintain our traditional and old-time physician-family-patient relationship or we are not. Whether we are to accept the government's, shall I say, largess for the payment of these poor devils, or whether we are going to deal with them directly, regardless of where they get their money, is the problem.

As we understand it, last year only about 5 per cent of the fees had not been paid. Are we going to change the law because 5 per cent of the doctors in treating these people have not been paid? I do not think it is fair when 95 per cent are being paid and are perfectly willing to maintain this physician-family-patient relationship. I think we ought to maintain ourselves as we are at all times.

May I tell you a story in conclusion? A man came to a small town one night looking for a room in which to sleep. No beds were to be had in the hotel, but he found there was one empty bed in a room which a general would occupy. He said, "Why don't you give me that extra bed? The general is fast asleep by now, and he won't know I have been there. You wake me up early, at 6:00 A.M., tomorrow morning, because I must catch a train, and he won't even know I have been there."

After much persuasion the hotel proprietor gave him the bed, and woke him at 6:00 A.M., according to the arrangement. As this man was dressing in the dark, he put on the general's uniform by mistake. As he went out into the street, he was saluted right and left. He could not understand why he was being so saluted, until he got to the train and was about to comb his hair and wash his face and saw himself in the mirror arrayed in a general's uniform. He said, "What a stupid fool that hotel proprietor is. I told him to wake me up at six, and

he woke up the general instead." (Laughter) "As a matter of fact, I think I may even miss my train." (Laughter)

SPEAKER BAUER: Is there any further discussion on the substitute resolution?

DR. CHARLES F. McCARTY, *Kings*: Dr. Bernstein said that only 5 per cent of the doctors were having trouble being paid. I have information, which I got last week from the New York City Department of Welfare, that during the past two years about 33 1/2 per cent of the doctors either were not paid or had great difficulty in collecting their fees in that they had to find out from the Department of Welfare when the person was going to be paid and go to the home and collect the money themselves before the check was cashed; otherwise they would be out of luck.

SPEAKER BAUER: Is there any further discussion? If not, are you ready for the question? The question is on the adoption of the reference committee's report, which carries with it the adoption of the substitute resolution. All those in favor of the adoption of the committee's report say "Aye"; those opposed, "No." The chair is in doubt. Those in favor of the motion—namely, the adoption of the committee's report—will please rise and stand until they have been counted. Now those opposed please rise. The vote is 53 in favor and 47 against; the committee's report is, therefore, adopted and with it the substitute resolution.

DR. RAWLS: In view of Paragraph 4 in the report of the Committee on Medical Relief, your committee thinks it important to adopt the following resolution:

"WHEREAS, a blanket policy of taking care of the families of all men in service will include many that are financially able to purchase their own medical care; and

"WHEREAS, the meaning of the word 'family' is not fully described; and

"WHEREAS, there are at present facilities for taking care of those who are financially unable to secure medical care through the Welfare Department; therefore be it

"Resolved, that the delegates of the Medical Society of the State of New York go on record as opposing a blanket policy of taking care of the families of all men in the service, recommending that the Welfare Department render such service as is necessary to those families of men in service who are not financially able to secure proper medical care."

I move its adoption.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. RAWLS: Now I move the adoption of the report of the Reference Committee, consisting of William B. Rawls, chairman, Edgar O. Boggs, Joseph A. Geis, Abraham Koplowitz, and Guy S. Philbrick, as a whole.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

SPEAKER BAUER: Thank you, Dr. Rawls!

Section 60. (See 15)

Report of Reference Committee on Report of the Council—Part IV: Publications and Medical Publicity—Special Committee on Office Administration and Policies

DR. ANDREW A. EGGSTON, *Westchester*: The Report of the Special Committee on Office Administra-

tion and Policies, which was referred to us, reads:

"The Special Committee on Office Administration and Policies recommends that the House of Delegates continue this Special Committee working under supervision of the reporting to the Council, and that the House give the following directive as to continuance of its personnel in keeping with the action of the House in 1942:

"The Committee on Office Administration and Policies shall consist of the general manager, the business manager of the *JOURNAL and Directory*, the literary editor, the treasurer, and one member of the Board of Trustees to be appointed by the President of the Society, after consultation with the Chairman of the Board of Trustees."

That is approved by your reference committee, consisting of Andrew A. Eggston, Chairman, Charles A. Anderson, J. P. Henry, A. A. Gartner, and A. M. Hellman.

I so move.

DR. ALFRED M. HELLMAN, *New York*: I second the motion.

SPEAKER BAUER: This recommendation is merely approval of a continuation of the practice now in effect—namely, that this committee shall be continued.

DR. GEORGE W. KOSMAK, *New York*: I think the original recommendation contained the phrase that the member of the Board of Trustees should be the chairman of this committee.

SECRETARY IRVING: No, that was in the report of the other special committee, the Committee on Publications.

DR. KOSMAK: But the original intent of the motion would make it apply to this committee likewise.

SPEAKER BAUER: You are privileged to make an amendment to the motion, Dr. Kosmak.

DR. KOSMAK: I so amend it.

.... The motion was seconded

SPEAKER BAUER: Dr. Kosmak moves the amendment of the motion by making the member of the Board of Trustees the chairman of the Special Committee on Office Administration and Policies.

Is there any discussion on the amendment?

.... The question was called for, and the amendment was put to a vote and was unanimously carried

SPEAKER BAUER: Now you have the amended motion before you, which carries with it the recommendation for the continuation of this committee as it is at present set up, plus the amendment suggested by Dr. Kosmak which was just voted on. Are you ready for the question?

.... The question was called for, and the motion, as amended, was put to a vote and was unanimously carried

SPEAKER BAUER: Are there any other reference committees ready to report?

Section 61. (See 4, 5, 6, 7)

Report of Reference Committee on Report of the President, the President-Elect, and Speaker

DR. DAVID W. BEARD, *Schoharie*: On the Report of the President, the Medical Society of the State of New York in the opinion of this reference committee has been singularly fortunate in having had the considered wisdom and sagacity that has been exemplified in all of Dr. Cottis' official acts and utterances during this past year. In the trying and troubled times through which we are now passing,

his solid opinions and logical thinking have been substantial assets. His finger at all times has been on the pulse of medical trends. He has demonstrated remarkable cognizance of organized medicine's important and inseparable relationship to the changing social order. His talks before the various District Branches, his quoted and publicized speeches, have all shown evidence of his practical and wholesome grasp of the intricacies and perplexities of the serious problems that confront us as a profession.

In reviewing this Report of the President, we should like to call attention particularly to the last half of it, those portions referring to the great socio-economic changes that this Society must be prepared to face. Let us quote briefly these remarks of his:

"No man can say how far the changes in our social organization will go before the end of the war, but no man can doubt the direction of the trend. Furthermore, it makes no difference whether we favor or dislike the trend. As long as this country remains a democracy, the people will decide."

He has reasonable and proper doubts that we are prepared to meet these imminent changes. We must prepare and have ready plans and proposals to meet any others that may be offered.

We are heartily in accord with Dr. Cottis' recommendation that a special committee be created to study and report on this problem. In this connection we respectfully refer to the supplemental report of this reference committee on the resolution introduced by Dr. Louis H. Bauer at the opening session of this House of Delegates.

We note with satisfaction his considered opinion regarding New York State doctors' full contribution to the war effort, not only in the supplying of the needs of the armed forces, but also in fulfilling the urgent demand of Selective Service and the requirements of the home front. These latter services have been unselfish and patriotic duties well performed.

The President has called attention to and has recommended the reading of the published and detailed committee reports. We urge compliance of the membership at large with this request that they may be better informed of the serious efforts of organized medicine in this State to cope with and attempt the solution of the vexing problems that confront us.

We would stress particularly the pressing need now to expand and activate the scope and plan of Medical Expense Indemnity Insurance. We believe that the best solution is a broad, unified, and comprehensive plan for medical care that can be distributed in conjunction with the well-accepted and established hospitalization plans, always safeguarding organized medicine's right to retain its proper influence and control.

We commend the President's complimentary references to the earnest and efficient work of all the various components that make up the administrative machinery of the State Society.

SPEAKER BAUER: I suggest that you move the adoption of that portion before you go ahead with the supplemental report.

DR. BEARD: I move the adoption of this portion of the reference committee's report.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. BEARD: The supplemental report of the President in reference to this House of Delegates

giving serious consideration to a *Basic Science Law* is well taken. It has come to our attention that a subcommittee of the Committee on Legislation will be created by the Council to study and consult with a committee of the State Legislature on the chiropractic problem. After conference with the Reference Committee on the Report of the Council—Part XII, we would recommend that this question of the *Basic Science Law* be also referred to this same subcommittee for their consideration and study in conjunction with the chiropractic situation.

In conclusion, we commend this unusual and accomplished report and move its adoption.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried ...

DR. BEARD: As to the report of the President-Elect, Dr. Thomas A. McGoldrick: Dr. McGoldrick in his brilliant address before the House of Delegates in this morning's session stressed the patriotic contribution of the doctors of this State to the war effort and called attention to the misleading report that New York State had failed to meet its quota.

It is comforting to note the President-Elect's warnings of the tendency to foster lay-controlled medical schemes and plans under the guidance of social welfare. We would respectfully urge that the Reference Committee on the Supplementary Report of the War Participation Committee (Report of Council—Part VIII) and the Director of Public Relations employ the means at their command to counteract all such propaganda.

Relating to the part that industry is assuming in the distribution of medical care, we would quote the following from the address of Dr. McGoldrick:

"It is not the function of industry to directly care for the employee and his family in sickness. That is the duty of the doctor outside the factory, the physician in the community, the physician chosen by the patient, the doctor of his home-life—and it is the obligation of county and State medical societies to prevent further invasion by corporations or employers into the practice of medicine. The physician in industry will be well employed in protecting all the employees from disease or accident; in knowing at all times the physical capabilities of the man for his particular job; in finding places in the plant for the employee who by accident or disease is unable to maintain his former skill and in striving to maintain in the plant every man capable of work, regardless of his chronological age."

These words of Dr. McGoldrick, in the opinion of our committee, state the case so adequately that we can only endorse it with all the weight at our command. We hope its import will be suitably publicized.

We note with satisfaction the President-Elect's encouragement of further expansion of plans for Medical Expense Indemnity Insurance.

We are glad to note that the President-Elect is in full accord with the recommendation of Dr. Cottis and Dr. Bauer for a planning committee for medical policy.

Dr. McGoldrick has also pointed out in his address the significance of unemployment with its resultant poverty and ill health, and is pleased to refer to the attitude of the present State administration "in its aim to maintain the highest possible rate of industrial activity with its full employment."

He has reiterated, and we believe it cannot be repeated too often, that medicine must be free from

political domination and must be allowed to have proper representation and control in all matters appertaining to the availability and distribution of medical care.

We move the adoption of this report.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried ...

DR. BEARD: As to the resolution introduced by the Speaker of the House of Delegates, Dr. Louis H. Bauer, the reference committee has carefully reviewed and considered the masterly resolution of Dr. Louis H. Bauer presented to the House at its morning session today, and is in full accord with its entire meaning and intent. We feel it fully implements the recommendations of President Cottis and President-Elect McGoldrick in their remarks which we have just reported upon.

We move the adoption of this resolution.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried ...

VICE-SPEAKER HALE: The resolution is adopted.

DR. BEARD: Now I move the report of the Reference Committee, consisting of David W. Beard, J. Stanley Kenney, Charles A. Prudhon, and Philip I. Nash, as a whole.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried ...

VICE-SPEAKER HALE: Thank you, Dr. Beard!

SPEAKER BAUER: Is any other Reference Committee ready to report?

Section 62. (See 31)

Report of Reference Committee on New Business A—Basic Science Law

DR. JOHN J. MASTERSON, *Kings*: Concerning the resolution on the *Basic Science Law*, introduced by Dr. Charles Gullo, of Livingston County—shall I read the resolution?

CHORUS: No. We remember it.

SPEAKER BAUER: The House already having acted on the subject, I think you can give the substance of it without rereading it.

DR. MASTERSON: It changes the law entirely.

CHORUS: Read your recommendation.

SPEAKER BAUER: Just give the recommendation of the reference committee.

DR. MASTERSON: The Committee spent considerable time with Dr. Gullo discussing this resolution. Dr. Gullo has given much time and a lot of study to this important matter. He has accumulated a vast amount of material regarding the favorable working of the *Basic Science Law* in the states where it is now on the statute books.

We are of the opinion that the adoption of this law would help considerably in preventing practice of medicine by the various cults.

Recommendation: In view of the fact that this matter is referred to in the President's Supplementary Report and has been referred to the Committee on the Report of the President, we feel that it is not necessary for our committee to make any recommendation at this time.

I move the recommendation of the reference committee.

SPEAKER BAUER: This subject was discussed a short time ago, and the question of the *Basic Science Law* was referred by the House to this new subcommittee of the Legislative Committee for study.

.... The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 63.

Proposed Amendment to Bylaws, Chapter II, Section 1

DR. J. STANLEY KENNEY, *New York*: This is a resolution to amend the Bylaws, Chapter II, Section 1, of the Medical Society of the State of New York:

"WHEREAS, the recently enacted reapportionment bill is based upon the population ratio and will thereby cause a redistribution of delegates from the component medical societies to the House of Delegates to the Medical Society of the State of New York; therefore be it

"Resolved, that the number of delegates from any component medical society be not reduced from their present number unless there has been a material reduction of the number of physicians in the area of any county medical society."

DR. ALFRED M. HELLMAN, *New York*: I second that.

SPEAKER BAUER: This being an amendment to the Bylaws, no action is required on it at this time, but it will remain in the hands of the Secretary and be acted on next year after due publication.

Is there any other committee ready to report?

.... There was no response

SPEAKER BAUER: Has anybody else a resolution to introduce at this time?

.... There was no response

SPEAKER BAUER: I will have to declare another ten-minute recess. We want to get several more committee reports out of the way this afternoon, so that we can get through with the major portion of our business tomorrow and be ready for the elections at 1:00 P.M.

.... There was a ten-minute recess at this point

SPEAKER BAUER: The House will be in order.

The Chair recognizes Dr. Holcomb, Chairman of the Reference Committee on the Report of the Council—Part VIII: War Participation.

Section 64. (See 12)

Report of the Reference Committee on Report the Council—Part VIII: War Participation

DR. F. W. HOLCOMB, *Alster*: The Reference Committee on the Report of the Council—Part VIII: War Participation, wishes to commend the committee of which Dr. Louis H. Bauer served as chairman, together with Dr. Peter Irving and his staff, for their excellent work during the past year with the State Chairman of Procurement and Assignment in connection with supplying physicians for the armed services from the State of New York.

This committee, through its untiring efforts, has made surveys of the whole State and has cooperated with Procurement and Assignment in an attempt to solve the perplexing problem of supplying physicians for the armed services without causing too great a shortage of physicians to care for the civilian population.

Your reference committee approves the recommendations made by this committee, which are as follows:

1. That all county medical societies continue their War Participation Committees and that they function in close liaison with the State

Committee and with Procurement and Assignment.

2. That these Committees see to it that industrial plants be adequately safeguarded from a medical standpoint.
3. That these Committees safeguard civilian welfare as well as furnish a pool for the Army and Navy.
4. That hospital staffs and teaching institutions be protected by declaring minimum necessary personnel as "essential."
5. That shortages in medical personnel developing from general increases in population or from expansion of industrial plants be reported promptly to Procurement and Assignment so that such shortages may be relieved.
6. That the Committees representing those counties which have not yet met their quotas take every step possible to induce eligible physicians to enter the service so that New York may meet whatever demands are made upon it.
7. That all physicians be urged to do welfare work regardless of whether or not they have done so heretofore, so that the indigent population may not be neglected but will continue to receive the medical care that the Society has always insisted that they have.
8. That the Society give a vote of thanks to Dr. Henry W. Cave and Dr. Joe R. Clemmons for their wholehearted cooperation with the State Society and for their eminent fairness in handling their difficult assignments.

The reference committee, consisting of Frederic W. Holcomb, chairman, Kenneth F. Bott, Emil Koffler, Erich H. Restin, and Thomas B. Wood, recommends the adoption of these recommendations as a whole.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. HOLCOMB: On the Supplementary Report of the Council—Part VIII: War Participation: In this report the committee has obtained the latest figures from the Procurement and Assignment Committee as of February 1, 1943. This report states that the number of physicians from New York State on February 1, 1943, was 9,000 with an additional 800 to 900 listed since February 1.

As the New York quota for 1942 was 8,600, this report proves that New York State has met its 1942 quota.

The report of the Council further states that at the start, in New York, 15,700 men were under 45 years of age. Of these, 9,800 to 9,900 are in service, and 2,185 have been physically disqualified. The remainder includes the younger men essential in the full-time faculties of the nine medical schools, all the alien physicians, women physicians, physicians essential in hospitals, and physicians essential in industry and in the mental hospitals. This original number, 15,700, must, in addition, furnish the balance required for the armed services.

With 43,000 physicians in the armed services, it will be seen that New York has furnished between 20 and 25 per cent of the total.

It is the opinion of the reference committee that this supplementary report disproves various publicized statements which maligned the medical profession of New York State, inferring that they had failed to meet their quota in the armed services, and that the medical profession has been remiss in

making efforts to supply physicians to areas in which there was inadequate civilian medical care.

Your committee recommends the adoption of the supplementary report.

SPEAKER BAUER: You have before you the recommendation of the Committee calling for adoption of the Supplementary Report. Is there any discussion?

DR. ABRAHAM KOPLOWITZ, Kings: Is it in order for me to make an amendment now?

SPEAKER BAUER: Yes.

DR. KOPLOWITZ: I would like to amend that to this extent: that a copy of this report be sent to the American Medical Association, and that they be asked to make the correction in the *Journal*.

DR. BENJAMIN M. BERNSTEIN, Kings: I second that amendment.

DR. HOLCOMB: We are making that recommendation later.

DR. KOPLOWITZ: Oh, I did not know that.

SPEAKER BAUER: Do you want to withdraw the amendment, then, for the time being?

DR. KOPLOWITZ: Yes.

DR. BERNSTEIN: Yes, as long as it is taken care of.

SPEAKER BAUER: You have before you, then, the adoption of this portion of the report of the reference committee. Is there any further discussion?

.... The question was called for, and the motion was put to a vote and was unanimously carried

DR. HOLCOMB: Your committee further recommends that copies of these reports be sent to the Office of Procurement and Assignment and to the Editors of the *Journal of the American Medical Association* for their information.

SPEAKER BAUER: I think the recommendation should be a little more specific. When you say "the Office of Procurement and Assignment," do you mean the national one?

DR. HOLCOMB: Yes, I will make it "the National Office of Procurement and Assignment."

SPEAKER BAUER: Because there are a good many offices throughout the various states.

DR. HOLCOMB: Thank you, it has been so amended.

SPEAKER BAUER: We will consider the committee's report amended to the extent that copies of these reports be sent to the National Office of Procurement and Assignment and to the Editors of the *Journal of the American Medical Association*. Is there any discussion?

.... The question was called for, and the motion was put to a vote and was unanimously carried

DR. HOLCOMB: I move the adoption of the report, as amended, as a whole.

.... The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER BAUER: Thank you, Dr. Holcomb!

Section 65. (See 36)

Report of Reference Committee on New Business C—Practical Nurse Training

DR. JOHN D. CARROLL, Rensselaer: Concerning the resolution introduced by Dr. George W. Kosmak, on: "Practical Nurse Training," reading:

"WHEREAS, there has long existed an evident need for another type of nursing service of a less demanding character than that hitherto supplied by the highly trained professional registered nurse group, for those patients, for example, afflicted with simple illness, undergoing convales-

cence from previous operations or confinements, or suffering from disabling chronic disease; and

"WHEREAS, this need has been intensified during the present emergency by the lack of available nurses for civilian and hospital needs; and

"WHEREAS, there are at present inadequate facilities for the procurement and training for this special practical nurse group; therefore be it

"Resolved, that the House of Delegates of the Medical Society of the State of New York endorse the movement to extend the facilities for training such practical nurses and likewise commend the efforts by the Nursing Council of this State in the procurement of candidates for such training,"

your committee recommends the approval of this resolution, and I so move.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

Section 66. (See 32)

Report of Reference Committee on New Business C—Amendment to "Principles of Professional Conduct"

DR. CARROLL: Regarding the amendment to Section 17 of the Principles of Professional Conduct, introduced by Dr. Harold B. Davidson, there is a suggested draft reading:

"When one physician seeks the medical aid of another with whom he has previously had no significant professional or social connection, it is proper for the physician seeking aid to proffer, and ethical for the treating physician to receive, such compensation."

The committee has recommended slight correction in the wording of this resolution, but does approve the resolution as read.

I move the adoption of the recommendation of the reference committee.

DR. HARVEY B. MATTHEWS, Kings: I second the motion.

SPEAKER BAUER: You have before you the recommendation of the committee for this amendment to the principles of professional conduct. Is there any discussion on it?

DR. THOMAS B. WOOD, Kings: Is that not somewhat in violation with our Hippocratic oath?

SPEAKER BAUER: Would you care to answer that, Dr. Carroll?

DR. CARROLL: This is the way it was described to my committee: It has been unethical in the past, according to our principles of professional conduct, for one physician to accept a fee for treating any immediate member of another physician's family. Apparently a situation has developed in the lower section of the State where some men have been taking care of other physicians' families for years gratis and have done very little other work for such physicians. So often has this been the case that it has been a hardship for some of these men to get along. When these instances were cited to the committee, providing that there was not really a definite fee charged, the committee felt there were certain circumstances in which a gratuity or gift—we hated to use the word "gratuity" so we used the word "compensation"—when offered could be taken by the attending physician.

DR. WOOD: I suggest the word "honorarium" for "compensation."

DR. CARROLL: That would be a very good word for it. I am sorry that the committee did not have the benefit of your advice originally on that.

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SPEAKER BAUER: Do you amend your report accordingly?

DR. CARROLL: I think that is permissible if none of my committee objects.

DR. WOOD: I suggest that it be amended so that an honorarium may be paid, but a fee may not be charged.

SPEAKER BAUER: Dr. Wood moves that the resolution be amended by leaving out the words "fee" or "compensation" and substituting therefor "honorarium"—that an honorarium may be paid but a fee may not be charged.

DR. WOOD: An honorarium may be accepted but no fee can be charged.

SPEAKER BAUER: An honorarium may be accepted but no fee can be charged.

You have the question on the amendment of the resolution. Is there any discussion on that?

.... The question was called for, and the amendment was put to a vote and was unanimously carried

SPEAKER BAUER: We now have the amended resolution before us for adoption. Does anyone wish to discuss this? Do you want the resolution, as amended, read?

DR. HARRY ARANOW, Bronx: Yes, it might be better for us to know how it reads as now amended.

SPEAKER BAUER: Will you read it, please?

DR. CARROLL: As amended, it reads:

"When one physician seeks the medical aid of another with whom he has previously had no significant professional or social connection, it is proper for the physician seeking aid to proffer, and ethical for the treating physician to receive, such honorarium."

That is the word that was substituted for the word "compensation."

The Committee has recommended slight correction in the wording of this resolution, but does approve the resolution as read.

I recommend the adoption of this part of the report.

Then there is an amendment that an honorarium may be received but no fee charged.

SPEAKER BAUER: Can you tie that into the resolution so you can read the resolution with those words in? I believe the reason Dr. Aranow requested that the resolution as amended be read was that we might see if it fitted in smoothly.

DR. HAROLD B. DAVIDSON, New York: If the simple change were made of changing the word "compensation" to "honorarium," I believe it would carry the same meaning and would leave the resolution clear, because there is not a question of charging anything anyway, and the unchanged part of Section 17 precludes the charging of a fee.

DR. CARROLL: I have changed that word "compensation" to "honorarium."

DR. DAVIDSON: Yes, and that would not require the repetition of it by the extra sentence that you added. What is wanted would be accomplished by that change of word instead of also adding the extra sentence.

DR. CARROLL: I have changed the word "compensation" to "honorarium."

SPEAKER BAUER: Will you read it as it will be when it is amended, please?

DR. CARROLL: "When one physician seeks the medical aid of another with whom he has previously had no significant professional or social connection, it is proper for the physician seeking aid to proffer, and ethical for the treating physician to receive, such honorarium." Now—

DR. WOOD: I move the adoption of this portion of the report.

.... The motion was seconded

SPEAKER BAUER: Is there any further discussion of the amended motion? If not, all those in favor say "Aye"; opposed, "No." The Chair is in doubt. All those in favor of this amended motion will arise and stay standing until you have been counted. Now those opposed to the amended resolution will stand. The resolution as amended, and as just read, is carried, 71 for and 32 against.

Continue with your report, Dr. Carroll.

Section 67. (See 39)

Report of Reference Committee on New Business C—Board of Regents Appointment Suggested

DR. CARROLL: In regard to the resolution introduced by Dr. B. Wallace Hamilton on the Board of Regents vacancy, reading:

"Resolved, that the House of Delegates of the Medical Society of the State of New York respectfully recommend and urge upon the joint caucus of the Senate and Assembly of the State of New York the designation of Dr. Chas. Gordon Heyd as Medical Representative on the Board of Regents of the University of the State of New York when a vacancy occurs in the First Judicial District."

Your committee, in session, added that last statement, "when a vacancy occurs in the First Judicial District." The reason for that was that there is now a vacancy in the Fourth Judicial District, and a man to fill that vacancy must be chosen from that District, but there will be a vacancy within the next year in the First Judicial District; therefore the Committee added the clause, "when a vacancy occurs in the First Judicial District."

With the explanatory addition, the resolution is approved by the committee, and I move the adoption of this part of the report.

.... The motion was seconded

SPEAKER BAUER: You have before you the reference committee's report moving adoption of this resolution with the amendment added by the committee. Is there discussion?

DR. WALTER P. ANDERTON, New York: There should also be added another clarifying expression to that—"when a vacancy at large or in the First Judicial District should occur."

SPEAKER BAUER: Does the committee accept that addition?

DR. CARROLL: It is true that there are three delegates at large in the State of New York. I think that the Committee will accept the addition. Will my committee members back me up on that?

.... Drs. Horace E. Ayers, Harry I. Johnston, J. B. Lawler, and Harvey B. Matthews replied in the affirmative

SPEAKER BAUER: If there is no objection, it will be amended in that form. Hearing none, it will stand as amended. Now is there any discussion on the amended recommendation?

.... The question was called for, and the motion was put to a vote and was unanimously carried

Section 68. (See 26)

Report of Reference Committee on New Business A—Committee for Liaison with Hospital Administrators

DR. CARROLL: On the resolution introduced by Dr. Abraham Koplowitz, of Kings, on a Committee

for Liaison with Hospital Administrators, reading:

"WHEREAS, the medical profession in its daily work in hospitals is in intimate contact with the administrations of such hospitals; and

"WHEREAS, such contact is through Medical Boards who represent its own staff only; and

"WHEREAS, medical care in hospitals is now so complex and involves economic factors which affect all physicians; now therefore be it

"Resolved, that the House of Delegates of the Medical Society of the State of New York, through its Council, organize a standing committee on liaison with hospital administrators under an appropriate name; to have such subdivisions of such committee as will adequately represent the various subdivisions of the State."

Your committee recommends that this matter be approved in principle, but taken care of by the Public Relations and Economics Committee of the Council. I so move.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

Section 69. (See 27)

Report of Reference Committee on New Business C—Graduates of Unapproved Colleges as Interns

DR. CARROLL: On the use of graduates of unapproved medical colleges, introduced by Dr. Harry Aranow, and reading:

"WHEREAS, for the last few years the number of medical graduates applying for internship has been inadequate to supply the demand; and

"WHEREAS, the present emergency is drastically reducing the number of interns available; and

"WHEREAS, though the large, desirable, prominent hospitals manage to obtain a minimum number of interns compatible with the proper running of the hospitals, some of the smaller hospitals have been unable to obtain enough interns to give their patients even the most essential care; and

"WHEREAS, the situation is so critical in some localities that hospitals may be compelled to either reduce the character of their service, or close altogether; therefore be it

"Resolved, that the American Medical Association be petitioned to permit the approved hospitals, under their supervision, to accept 'for the duration' interns from the several as yet unapproved medical colleges."

Your committee recommends that this resolution be sent to the Council, and that this matter be taken up with the American Medical Association.

I move the adoption of this part of the report.

.... The motion was seconded

SPEAKER BAUER: You have before you the reference committee's report which recommends that this resolution be referred to the Council, who should take it up with the American Medical Association.

DR. HARRY ARANOW, Bronx: Mr. Speaker, in the first place I want to explain the reason why I introduced this resolution, and then I will also bring out its purpose.

I brought this up before the Council, and the Council suggested that I bring it up before the House. (Laughter)

There are hospitals in New York that are so shorthanded now that unless they get some interns they will have to close. We have one or two hos-

pitals in New York that have refugees, inadequately trained refugees, as interns. We have in one institution two or three refugee women physicians who can hardly speak English and who don't know a great deal of medicine either, yet we have to pay them to stay there.

We are not asking the American Medical Association to let down the barriers; but what we are asking them to do is to close their eyes to any possible infractions in regard to this ruling for the time being.

I know of one hospital in New York that took in one or two interns from the Middlesex College, and they were notified by the American Medical Association to discharge them at once or they would have to take out all the other interns.

While these colleges are not up to date—and I am the last one to wish to reduce the standards of medical education—it seems to me that for the duration we should at least ask the American Medical Association not to be so strict, if you want to do it that way, and give us a chance to run some of these hospitals so they will not have to close up. If this ruling is strictly enforced, the hospitals will be compelled to close.

DR. W. GUERNSEY FREY, Jr., Queens: I should like to move an amendment to the report of the reference committee that the resolution be disapproved.

SPEAKER BAUER: That is hardly in order. The defeat of the resolution accomplishes the same thing

DR. FREY: I don't think so. I should like to appeal from the ruling of the Chair in that regard. I think we ought to go on record definitely as disapproving this.

SPEAKER BAUER: The resolution, or the motion, rather, if I am not mistaken, was that the matter be referred to the Council. If the motion is defeated, then the resolution dies with it, because there is no other resolution before the House.

DR. BENJAMIN M. BERNSTEIN, Kings: I should like to ask that this resolution be defeated. Again we are letting down the bars in one way or another and permitting things which we disapprove of in normal times to take place at the present time.

Let us analyze the situation briefly in this way: There are about three schools that are not approved at the present time. The total number of graduates from all of those three schools in any one year would amount to fewer than 300. Three hundred distributed over 600 hospitals throughout the country would mean very little relief to those hospitals for the duration; at the same time we would again be doing with our left hand what we disapprove of with our right. Let us be consistent. Let us have these colleges approved if they are worthy, or let us not quibble about the details at the moment. I would urge disapproval of the resolution.

SPEAKER BAUER: Dr. Frey, on your point of order: If this committee's motion is lost you may then move that the resolution be disapproved by this House, of, if you wish, at this time you could move a substitute motion for the committee's report but not an amendment in the terms you proposed.

DR. FREY: I should like to see the House take positive action rather than negative action.

SPEAKER BAUER: You can do it either way. You can either wait until the House has disposed of this motion of commitment, or you may move a substitute motion for the committee's report.

DR. FREY: I move such a substitute motion.

SPEAKER BAUER: Has anybody seconded that substitute motion?

... The motion was seconded by several

DR. CHAS. GORDON HEYD, New York: Mr. Speaker and Members of the House of Delegates, if Dr. Aranow wants the Council on Medical Education in Hospitals to be a little asleep in enforcing this requirement, he is taking a bad way to accomplish his purpose, because if you put in a resolution, letter, or request, it has to be acted on, and in that way he defeats his own objective. If he would like the Council to undergo a Rip Van Winkle sleep for the duration, please don't disturb them by asking them a question. (Laughter)

Furthermore, there are only three of these schools involved, and there is no question that it is to the best interests of medicine that they be put out of business, and it does not affect the intern problem at all. There will be by the first of October over 1,500 more internships than can be supplied. About a third of the Middlesex boys are already in the Army under special examinations, and it will not solve your intern problem to pick up the balance of these boys. I don't believe that we are going to be particularly anxious about one or two men that happen to be mal-located, let us say, but I agree with the substitute motion that we should under no circumstances, as a body to whom the confidence of the people has been given, pass a resolution that tears down thirty years of constructive efforts in medical education. (Applause)

SPEAKER BAUER: The question before the House now is on the substitution of Dr. Frey's motion for the motion by the reference committee. That is what we are discussing—the substitute motion, which carries with it the disapproval of the resolution.

DR. ARANOW: I want just to read what Dr. Lahey, the ex-president of the American Medical Association, said on this very same problem when he was asked that question about accepting interns from substandard colleges. Dr. Lahey replied, "I will do it, and I will let the American Medical Association go and whistle, and I say that as the ex-president of the American Medical Association." We simply have to cut corners in this emergency. That is from a newspaper clipping, given to me by one of the gentlemen here as I was on my way to the platform.

SPEAKER BAUER: The question is on Dr. Frey's substitute motion. The committee's report recommends that this resolution be referred to the Council with instructions to take it up with the American Medical Association. Dr. Frey has moved that instead the House substitute a motion of disapproval of the resolution. Now the question before you is whether you will substitute that motion of Dr. Frey's for the motion given by the committee. Is there any further discussion on that?

... The question was called for, and the motion was put to a vote and was carried

SPEAKER BAUER: The motion is substituted. The substituted motion is now before you for further discussion. Is there any further discussion on it?

... The question was called for, and the substituted motion was put to a vote and was carried

SPEAKER BAUER: Continue, Dr. Carroll.

Section 70. (See 55)

Report of Reference Committee on New Business
C—Amendment to Workmen's Compensation
Law to Cover Paid Hospital Physicians

DR. CARROLL: On the Amendment to the Workmen's Compensation Law, which resolution was introduced by Dr. Jacob Werne, of Queens, reading:

"WHEREAS, physicians under salary employed by hospitals or other institutions allied to the practice of medicine are exposed to certain special hazards incident to their employment, in addition to the ordinary hazards common to all individuals employed by these institutions; and

"WHEREAS, such physicians (with the exception of interns) are not included as beneficiaries under the Workmen's Compensation Law; and

"WHEREAS, disability resulting from injury or illness sustained as a result and in the course of such employment may markedly diminish or entirely dissipate the earning power of such physicians; be it hereby

"Resolved, that the Medical Society of the State of New York initiate measures, through appropriate channels, to cause the Workmen's Compensation Law to be so amended as to provide for the inclusion of the class of physicians above described as beneficiaries under that Law."

Your committee is sympathetic with the resolution. It recommends that it be referred to the Compensation Committee for consideration. I move the adoption of this part of the report.

SPEAKER BAUER: As I understand the reference committee's report, it is that this resolution be committed to the Council Committee on Workmen's Compensation for consideration?

DR. CARROLL: That is right.

... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

Section 71. (See 24)

Report of Reference Committee on New Business
C—U.S. Cabinet Secretary of Health

DR. CARROLL: On the resolution introduced by Dr. Benjamin M. Bernstein, on the subject "A Secretary of Health," reading:

"WHEREAS, the forward march of civilization depends on the world's health; and

"WHEREAS, the health of the people of the United States is the concern of all the people; and

"WHEREAS, coordination of all agencies working for the maintenance of health and the prevention and cure of disease is becoming increasingly important in our daily lives; and

"WHEREAS, the problems of medical care could best be coordinated and correlated under the guidance of a central agency; be it

"Resolved, that the American Medical Association urge, with all the power at its command, that a cabinet ministry of health be established at the head of which there shall be a physician."

Your committee recommends the approval of this resolution, and I move the adoption of this part of the report.

SPEAKER BAUER: Is the motion seconded?

DR. J. B. LAWLER, Oneida: I will second it.

DR. J. STANLEY KENNEY, New York: Would it not be wise to include that the physician be a representative of organized medicine rather than just the word "physician"? I listened to Mr. Waldemar Kaempfert, of the New York Times, make a public statement not long ago that he was in favor of such

a thing, but he hoped that the doctor would not be a member of the American Medical Association.

SPEAKER BAUER: Do you wish to move an amendment, Dr. Kenney?

DR. KENNEY: Yes—that he be a representative of organized medicine or something to that effect. If you leave him without a tag, I think you are making a big mistake.

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DR. KENNEY: I will accept the wording of Dr. Irving's amendment.

SPEAKER BAUER: Is there any objection to Dr. Kenney's accepting that amendment? If not, the amendment will read that the physician must be a member of a county medical society. Is there any further discussion on the amendment?

.... The question was called for, and the amendment was unanimously carried

SPEAKER BAUER: You now have before you the amended motion.

DR. EDWARD P. FLOOD, Bronx: It is referred to as a cabinet ministry of health. That is not a term that connotes any American department. That is an English term. We might have a Department of Health.

DR. BERNSTEIN: Secretary of Health.

DR. FLOOD: But Secretary of a Department of Health—not a Ministry of Health.

DR. BERNSTEIN: Right.

DR. CARROLL: My committee will accept that change in wording: "cabinet secretary of health."

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DR. IRVING J. SANDS, Kings: If we pass this resolution, won't that really be furnishing ammunition to those people who advocate socialized medicine?

CHORUS: Why?

SPEAKER BAUER: Why?

.... There was no response

SPEAKER BAUER: Does anybody want to answer that question?

DR. EDWARD R. CUNIFFE, Bronx: I just want to tell you that if a man is made Secretary of Health, he is the health official of the United States, and automatically becomes a member of the American Medical Association.

DR. HARRY E. UNGERLEIDER, New York: I think it is a very poor thing for the Society to pass

this resolution for the following reason: The Secretary of Health will be nominated by the President of the United States. You know how these appointments are made. A good many of them are political appointments. Whether this will work to the good of the public depends on the personality of the man who is appointed, and if the present President of the United States or some future President of the United States prefers to appoint a man who is not sympathetic with the aims of the American Medical Association and its component bodies, we will have socialized medicine foisted upon us quicker than we know. I think we ought to think this thing over thoroughly before we give it our approval.

DR. BERNSTEIN: Suppose a year from now we receive a report from a special committee appointed by the Speaker to study postwar planning, and that committee has some definite plan to offer. To whom are you going to offer it? With whom are you going to discuss it? The present plans being considered in Britain are being discussed by the British Medical Association and the Ministry of Health. With whom are we going to talk? How are we going to propose a plan? With whom are we going to consult after we have a plan all formulated? If you get a Secretary of Health he does not have to be a socialized minister of health at all, but he has to be a man who can coordinate health activities, be they socialized or not. We must have somebody to talk with when we are ready to talk with anybody at all.

SPEAKER BAUER: Is there any further discussion? You have the amended motion before you for adoption or rejection, as you see fit. If there is no further discussion, will you read the amendment?

DR. CARROLL: The way I had it before?

SPEAKER BAUER: We have already amended it, so read it as thus amended.

DR. CARROLL: The last amendment was that he be a member of a county medical society.

SPEAKER BAUER: Read the whole thing with that incorporated in it.

DR. CARROLL: It will now read:

"WHEREAS, the forward march of civilization depends on the world's health; and

"WHEREAS, the health of the people of the United States is the concern of all the people; and

"WHEREAS, coordination of all agencies working for the maintenance of health and the prevention and cure of disease is becoming increasingly important in our daily lives; and

"WHEREAS, the problems of medical care could best be coordinated and correlated under the guidance of a central agency; be it

"Resolved, that the American Medical Association urge with all the power at its command that a cabinet secretary of health be established, at the head of which there shall be a physician, a member of a county medical society."

SPEAKER BAUER: Is there any further discussion? If not, all in favor of the motion as amended will say "Aye"; those opposed, "No." The Chair is in doubt. All in favor of the motion as amended please rise and stay standing until you are counted. Now those opposed will please rise. The motion is carried 51 to 43. The recommendation of the committee, as amended, is therefore adopted.

Section 72. (See 25)

Report of the Reference Committee on New Business C—World Food Conference

DR. CARROLL: On the resolution introduced by

Dr. Benjamin M. Bernstein, concerning the World Food Conference, reading:

"WHEREAS, the use of food and the study and application of problems of nutrition are increasingly essential in the training and practice of the doctor; and

"WHEREAS, the problems of food in this country, as well as the world at large, are the concern of the medical profession; and

"WHEREAS, the knowledge and experience in the possession of the medical profession in this country is of the utmost value in the discussion of national as well as international food relationships; be it

"Resolved, that the American Medical Association be urged to request representation at the coming United Nations' Food Conference to be held at Hot Springs, Virginia, on May 18."

Your committee recommends the approval of this resolution, and I move the adoption of this part of the report.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. CARROLL: I move the adoption of the report of the committee as a whole, as amended.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

SPEAKER BAUER: Thank you, Dr. Carroll!

Section 73.

Report of Reference Committee on Reports of Treasurer and Board of Trustees

DR. J. LEWIS AMSTER, Bronx: The financial management of the Medical Society of the State of New York is of vital importance and of great concern to this House of Delegates.

After making a most careful and painstaking survey of the reports submitted by the Treasurer, Dr. Kirby Dwight, and the Board of Trustees, Dr. Edward R. Cunniffe, chairman, our committee is prepared to report the following findings:

(A) Concerning the Treasurer's Report:

1. That the financial status of the Society, as shown by excerpts from the annual report of the auditors, Messrs. J. K. Lasser & Co., for the year 1942, merits commendation.

2. The figures show an increase in our balance of \$54,900 for last year.

3. The increase in saving was largely due to rigid economy in management as reported by the Treasurer, nonpublication of the *Directory*, and increased advertising income of the *JOURNAL*.

However, we must realize that more and more of our members will be in the armed forces, and with the remission of their dues during the remainder of the war, and with costs on a steady increase, our finances may become somewhat crippled as time goes on. It is, therefore, advisable for the Society to curtail its expenditures as much as possible.

I move adoption of the Treasurer's report.

.... The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

(B) Concerning the Trustees' Report:

DR. AMSTER: 1. Your reference committee notes with appreciation that while the 1942 House of Delegates empowered the Trustees "to use income from investments, if necessary," wise management obviated the need for utilization of this power. However, this discretionary power should again be granted to

the Trustees for the ensuing year because of future uncertainty.

2. Your committee highly commends the increased investment in Defense Savings and Treasury Bonds as sound financial as well as patriotic practice.

I move the adoption of this report.

.... The motion was seconded

SPEAKER BAUER: It has been regularly moved and seconded that the Report of the Reference Committee on the Report of the Trustees, which recommends extension of the authorization by the House to the Trustees to use income from investments during the next year, if they find it necessary to do so, be adopted. Is there any discussion on this portion of the report?

DR. JOSEPH A. GEIS, Esser: Does the adoption of this report grant the Trustees the power to draw on that money for another year?

SPEAKER BAUER: It expresses the opinion of the House that the Trustees are justified in using income from investments, if they find it necessary to do so.

DR. GEIS: Does that give them the authority to do so?

SPEAKER BAUER: Yes.

.... The question was called for, and the motion was put to a vote and was unanimously carried

DR. AMSTER: Now I move that the report of your committee, consisting of J. Lewis Amster, chairman, Archibald K. Benedict, Corbet S. Johnson, Leo P. Larkin, and Ezra A. Wolff, as a whole, be adopted.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

SPEAKER BAUER: Thank you, Dr. Amster!

I think we have time for one more report.

Section 74. (See 45)

Report of Reference Committee on New Business A—Mental Hygiene, State Administration

DR. JOHN J. MASTERSON: In connection with the resolution introduced by Dr. John J. Buettner on mental hygiene, which reads as follows:

"WHEREAS, the medical profession is interested in any change from medical administrative control of our mentally sick because of the possibility of affecting detrimentally the service which has been built up to be one that is looked upon throughout the country and the world as a model; be it

"Resolved, that we express to Governor Dewey full confidence in his purpose and design and hope that he may appoint capable and experienced personnel for both administrator and director,"

we feel that it would be injudicious to pass the resolution and recommend it be not approved.

I so move.

.... The motion was seconded, and as there was no discussion, it was put to a vote and the motion of disapproving the resolution was unanimously adopted

Section 75. (See 47)

Report of the Reference Committee on New Business A—Foreign Physicians Survey

DR. MASTERSON: This is on the resolution introduced by Dr. Joseph C. O'Gorman, of Erie. Shall I read the resolution? It is rather long.

SPEAKER BAUER: Yes, read it, so we may know what we are considering.

a thing, but he hoped that the doctor would not be a member of the American Medical Association.

SPEAKER BAUER: Do you wish to move an amendment, Dr. Kenney?

DR. KENNEY: Yes—that he be a representative of organized medicine or something to that effect. If you leave him without a tag, I think you are making a big mistake.

SPEAKER BAUER: I think "organized medicine" is a little indefinite. We all know what is meant by that expression, but officially I suppose there is not any such designation, although unofficially there is, and we all understand what is meant by it. I think if you made it that the physician be a member of the American Medical Association you would accomplish the same purpose.

DR. KENNEY: That is suitable to me.

.... The amendment was seconded

SECRETARY IRVING: Why not say he shall be a member of a county medical society, and leave out the American Medical Association, so there will not be a howl on that score?

CHORUS: Fine!

DR. BENJAMIN M. BERNSTEIN, *Kings*: That is better and accomplishes the same thing.

DR. KENNEY: I will accept that.

DR. BERNSTEIN: May I say that Dr. Irving's amendment is very much better because the Surgeon-General is a member of the American Medical Association and, therefore, he may be appointed; if you make it a member of a county medical society, he is out.

DR. KENNEY: I will accept the wording of Dr. Irving's amendment.

SPEAKER BAUER: Is there any objection to Dr. Kenney's accepting that amendment? If not, the amendment will read that the physician must be a member of a county medical society. Is there any further discussion on the amendment?

.... The question was called for, and the amendment was unanimously carried

SPEAKER BAUER: You now have before you the amended motion.

DR. EDWARD P. FLOOD, *Bronx*: It is referred to as a cabinet ministry of health. That is not a term that connotes any American department. That is an English term. We might have a Department of Health.

DR. BERNSTEIN: Secretary of Health.

DR. FLOOD: But Secretary of a Department of Health—not a Ministry of Health.

DR. BERNSTEIN: Right.

DR. CARROLL: My committee will accept that change in wording: "cabinet secretary of health."

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SPEAKER BAUER: Why?

.... There was no response

SPEAKER BAUER: Does anybody want to answer that question?

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"WHEREAS, the problems of medical care could best be coordinated and correlated under the guidance of a central agency; be it

Resolved, that the American Medical Association urge with all the power at its command that a cabinet secretary of health be established, at the head of which there shall be a physician, a member of a county medical society."

SPEAKER BAUER: Is there any further discussion? If not, all in favor of the motion as amended will say "Aye"; those opposed, "No." The Chair is in doubt. All in favor of the motion as amended please rise and stay standing until you are counted. Now those opposed will please rise. The motion is carried 51 to 43. The recommendation of the committee, as amended, is therefore adopted.

Section 72. (See 25)

Report of the Reference Committee on New Business C—World Food Conference

DR. CARROLL: On the resolution introduced by

On the subject of child welfare, the committee recommends the acceptance of the report as made, with the specific changes which it has suggested.

I so move.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. TOWNE: Continuing:

Tuberculosis and Chest Diseases. The report of the committee of the Council with specific reference to tuberculosis and chest diseases is endorsed as presented, with special commendation as to the desirability of amending Section 326-A of the Public Health Law in such a manner that more strict control of careless and dangerous patients will be brought about.

I so move.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. TOWNE: Continuing:

Industrial Health. Under the Subdivision of Industrial Health, we note with approval the type of programs and activities which have been rendered during the past year and recommend that they be continued. We further recommend that the Council make financial provision adequate to the necessary expenses of the committee in furthering its activities.

I so move.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. TOWNE: The next subdivision is:

Dental Health. Regarding the dental health, this reference committee heartily endorses the program as outlined under the heading of "Dental Health." We specifically commend the suggestion of setting up training courses for dentists in the emergency war medicine and surgery. This is a definite step toward greater cooperation between the medical and dental professions. This committee has carefully considered this section and commends its provisions with the hope that greater activity during the coming year can be accomplished. The predominating thought of the scientific program of this present session is war medicine and surgery. The interest which the profession generally is showing is evidence of its desire to keep abreast of modern advances along this line.

Medical Aspects of Chemical Warfare. We also wish to commend the action of the committee on

its action relative to the Medical Aspects of Chemical Warfare and recommend the continued enlightenment of the profession relative to modern advances and changes in line of treatment.

Blood Plasma Therapy and Whole Blood Transfusion. We have of the suggestion made by t Postgraduate Instruction in Plasma Therapy and Whole Blood Transfusion. We urge increased activities in promoting the dissemination of knowledge regarding this subject.

Rheumatic Fever. The paragraph relating to rheumatic fever is thoroughly approved, together with the suggestion that more intensive study be given this subject for presentation before county medical societies.

4-H Clubs and Youth Health Activities. The 4-H Clubs and Youth Health Activities are especially commended. We thoroughly approve of the objectives outlined in the report, together with the project and requirements relating to:

1. Health examinations
2. Encouraging correction of defects
3. Health and safety training
4. Community health and safety education

I move the adoption of these portions of the report.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

DR. TOWNE: Now I move the adoption of the report of the Reference Committee, consisting of G. Scott Towne, Chairman, Herbert E. Wells, Morris Maslon, Edward P. Flood, and Albert A. Cinelli, as a whole.

.... The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

SPEAKER BAUER: Thank you, Dr. Towne!

Dr. Irving has an announcement to make.

SECRETARY IRVING: This evening in Room A, on the Mezzanine Floor, Dr. Kaliski will be very glad to meet with anyone who has to do with Workmen's Compensation Committee work in the county societies, to discuss any matters in which they may be interested.

SPEAKER BAUER: Gentlemen and Ladies, we thank you for your patience, and we will recess now until 9:00 A.M. tomorrow.

.... The session recessed at 6:15 P.M.

(To be continued in the July 1 issue.)

DR. MASTERSON: It reads:

"WHEREAS, medical care is an integral part of plans for the relief and aid to peoples in the stricken foreign countries; and

"WHEREAS, citizens of the United States and graduates of the medical faculties of the United States are ineligible to apply for licensure to practice medicine in Continental Europe and the British Isles: and

"WHEREAS, there are in the United States of America, many physicians, the refugee, the exiled, and the expatriate, who are eligible to practice in Continental Europe and the British Isles; and

"WHEREAS, these physicians are ineligible for service in the armed forces of the United States; and

"WHEREAS, statistics record that approximately 50 per cent of the graduates of the Medical Faculties abroad, examined for licensure in the United States, failed; and

"WHEREAS, the licensed and unlicensed refugee, exile, and expatriate physicians in the United States are denied the privilege of serving the United States or their own country; and

"WHEREAS, these physicians know the language, the people, and the customs, and are eligible for service in their respective countries; therefore be it

Resolved, that the Medical Preparedness Committee of the Medical Society of the State of New York make a survey of physicians available and eligible to practice medicine in Continental Europe and the British Isles"

and we have cut out:

"and to report to the Procurement and Assignment Committee of the Medical Society of the State of New York; and be it further

Resolved, that the Procurement and Assignment Committee of the Medical Society of the State of New York, proceed to form a corps of these available and eligible physicians for service, when and where needed, in relief and aid areas."

Recommendation: This is a big order. We presume that the International Red Cross and other agencies set up for war and postwar relief and aid have already given much thought to this subject. However, if the Medical Preparedness Committee of the Medical Society of the State of New York could find it possible to make a survey of physicians who would be willing to return to Continental Europe for relief work, and have it available for the proper authorities, it would greatly aid in expediting their work and would be of much value to them when the services of these men will be needed.

I so move.

.... The motion was seconded

SPEAKER BAUER: There is one other amendment that should be made. You refer to the Medical Preparedness Committee, which has been changed by order of the Council to the War Participation Committee.

DR. MASTERSON: We are agreeable to that change.

SPEAKER BAUER: You have before you the amended resolution, which in substance recommends that the War Participation Committee make a survey of these physicians. The rest of the resolution is deleted. Is that not so?

DR. MASTERSON: Yes, but we have a recommendation.

SPEAKER BAUER: Read the recommendation.

DR. MASTERSON: Recommendation: This is a

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SPEAKER BAUER: In substance the committee recommends that the War Participation Committee of the State Society conduct a survey, that information to be available for whomever might want it. Is that what in substance the committee recommends?

DR. MASTERSON: That is right.

SPEAKER BAUER: But not to be reported to Procurement and Assignment?

DR. MASTERSON: That is right.

.... The question was called for, and the motion was put to a vote and was unanimously carried

SPEAKER BAUER: Dr. Towne, do you have a report ready?

DR. G. SCOTT TOWNE, *Saratoga*: Yes.

SPEAKER BAUER: This will be the last one we have time for. We will convene tomorrow morning promptly at 9:00 A.M. We have a good deal of ground to cover, and I want nothing left over for the afternoon except the election of officers and A.M.A. delegates and retired members. As you know, the general session of the Society will start 2:30 P.M., so that is going to give us only one hour and a half to call the roll and hold the election, which always takes some time for the voting. Therefore, please be prompt at 9:00 A.M., so we can clear up everything tomorrow morning.

Section 76. (See 9)

Report of Reference Committee on the Report of the Council—Part II: Public Health Matters

DR. G. SCOTT TOWNE, *Saratoga*: Your Reference Committee on Public Health Matters—Part II—begs to submit to you the following report:

In making this report we have followed the outline of topics as they appear in the written report published in the NEW YORK STATE JOURNAL OF MEDICINE, April 1, 1943, issue.

Maternal and Child Welfare. The first item considered is on the subject of maternal and child welfare. The committee thoroughly approves of the program suggested by the Council, which included:

1. Coordination of the maternal and child welfare activities of the Medical Society of the State of New York and the State Department of Health
2. Subjects to be included in the regional programs
3. More emphasis on pediatrics in regional programs
4. The proposed "Consultant Service"

Relative to the supplemental report regarding the Federal Deficiency Appropriation Act of 1943, making an appropriation of \$1,200,000 to provide so-called emergency maternal and infant care to wives and infants of men in the armed forces, we note with apprehension that there is no specific statement as to amounts or how attending physicians shall be compensated. We recommend that the committee continue its efforts to secure specific data relative to these facts.

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Hospital News

Governor Appoints Board to Investigate Mental Hospitals

An investigation of New York State's mental hospital system has been ordered by Governor Thomas E. Dewey, who appointed for the purpose a Moreland Act commission of five members, headed by Archie O. Dawson.

The others appointed by the Governor to act with Mr. Dawson were:

Dr. Peter Irving, of New York, secretary and general manager of the Medical Society of the State of New York; Charles Roswell, Springfield, Queens, assistant director of the United Hospital Fund and consultant on hospital accounting, formerly assistant director and comptroller of St. Luke's Hospital in New York; Dr. Fraser D. Mooney, of Kenmore, superintendent of the Buffalo General Hospital and vice-president of the American College of Hospital Administrators; and Assemblyman Lee B. Mailler, of Cornwall, chairman of the

State Health Preparedness Commission and superintendent of Cornwall Hospital.

Governor Dewey emphasized that this was not an "inquisitorial commission," but that its purpose would be to examine the methods and procedures for caring for the state's 90,000 mental patients.

Noting that the state has eighteen mental hospitals, six schools, and two institutes, all operated by the Department of Mental Hygiene, he said that "with the staggering percentage of mental cases among our war casualties, we are entering a period when research and improvement in treatment of mental illness will become a major consideration of society.

"Not only must better methods of hospitalization and cure be developed," he said, "but earlier recognition of mental disturbances and more prompt treatment must be our objective."

MacCurdy Is New State Hygiene Commissioner

DR. FREDERICK MACCURDY, professor of hospital administration of Columbia University and director of the Vanderbilt Clinic of the Columbia Presbyterian Medical Center in New York, has been appointed by Governor Thomas E. Dewey as State Commissioner of Mental Hygiene.

Dr. MacCurdy succeeds Dr. H. Beckett Lang, who has been acting commissioner since the resignation of Dr. William J. Tiffany.

"The medical profession generally," Dr. MacCurdy said, "should have a broader background in mental cases, so they can be recognized quicker. The majority of mental patients respond to treatment more quickly if they get early care, and I have the definite view that we should make more use of the mental hospitals for the training of young physicians in the mental side of medical care."

Governor Dewey said it was "deeply gratifying" to him that Dr. MacCurdy has accepted the direction of the state's mental hospitals. The Governor pointed out that it was only because of the enactment of a new law this year that he could "procure a man of Dr. MacCurdy's stature for this all-important work." This law eliminated the requirements that the Commissioner of Mental Hygiene have at least ten years' psychiatric experience in a mental hospital.

A former president of the New York State Hospital Association, Dr. MacCurdy was one of the original members of the joint administrative board which planned and constructed the Columbia Presbyterian Medical Center and is a member of the group of operating executives intimately associated with the Center since its opening in 1928.

Newsy Notes

Two State hospitals which celebrated their fiftieth anniversaries in May were Lebanon Hospital of the Bronx and the New Rochelle Hospital.

The 900 guests who attended the dinner at the Waldorf-Astoria in commemoration of Lebanon Hospital's fifty years contributed \$60,000 toward the \$275,000 fund for furnishing and equipping the new building.

Announcement was made recently in New York and in Albany that these two cities are adequately prepared to treat civilian casualties that may result from enemy action or any other war disaster.

Pilgrim State Hospital, Brentwood, Long Island, will be converted into an Army general hospital.

A wartime convention of the Hospital Associations of New York and New Jersey was held in New York City May 27, 28, and 29. Each of the state associations held its annual business meeting and election of officers at that time.

Harold A. Grimm, Esq., medical director of the Millard Fillmore Hospital, Buffalo, was elected president of the New York group, to succeed the retiring president, the Rev. John J. Bingham. The new president of the New Jersey association is Dr. J. Berkeley Gordon, of the Marlboro Hospital.

DR. PITTS RE-ELECTED HEAD OF CANCER SOCIETY

Dr. Herman C. Pitts, of Providence, Rhode Island, was recently re-elected president of the American Society for the Control of Cancer at the annual meeting of the group in New York City. Other officers, also re-elected, include Dr. John J. Morton, Rochester, New York, vice-president;

Dr. Frank E. Adair, New York City, vice-president; Dr. C. F. Rhoads, New York City, secretary; and James H. Ripley, treasurer.

Dr. Clarence E. Little, managing director of the Society, urged that a drive to rouse interest in cancer control be started in secondary schools.

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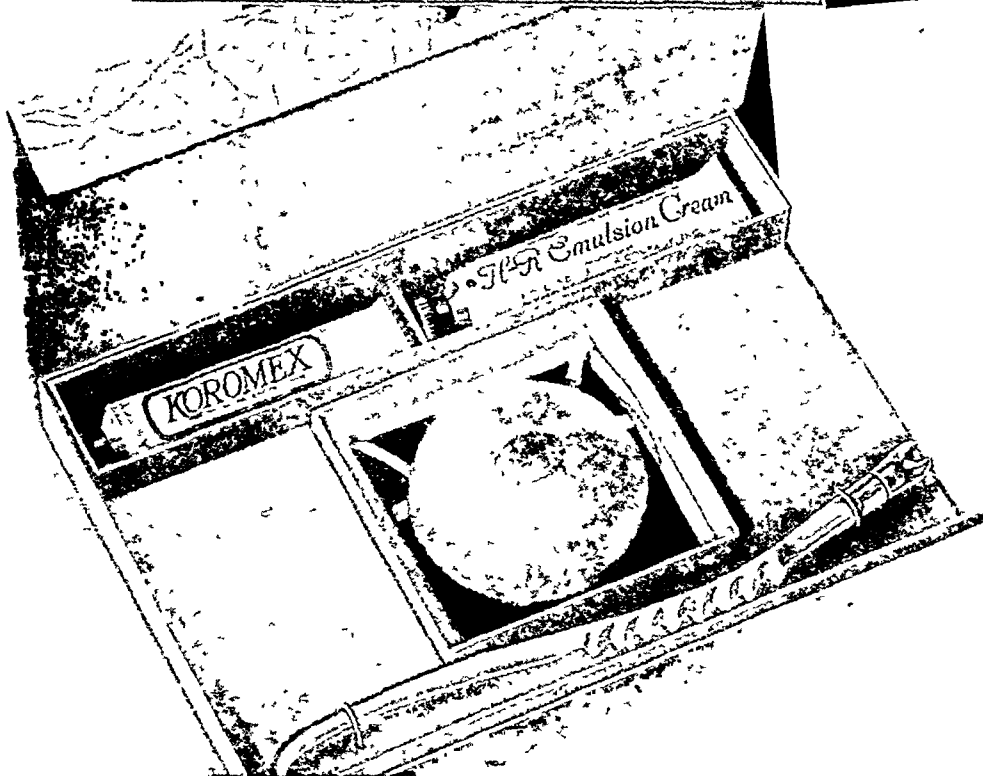
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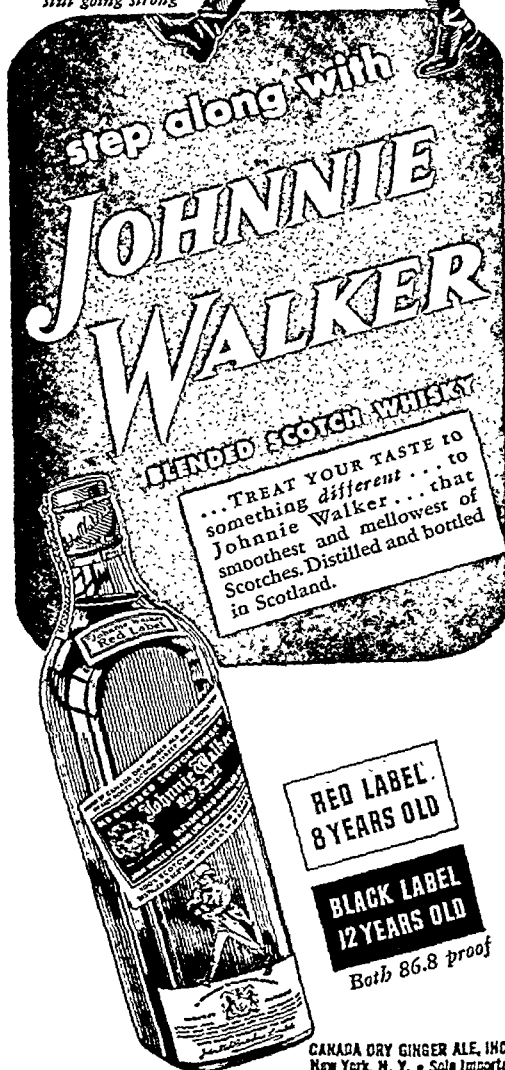
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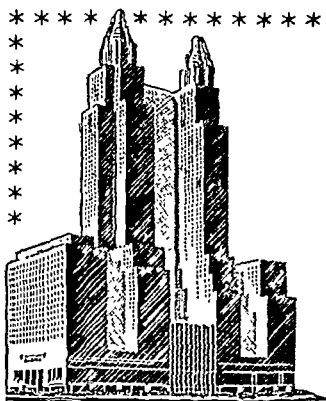
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